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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Notes on Diseases of the Chest.* By JOHN DAWSON, M. D., of Columbus, O.

Our object is to say something on the subject of *Tubercular Phthisis.* Into a consideration, however, of the disease, in all its properties and relations, we do not expect to enter. Much with reference to it is well known; so well, that it is indeed unnecessary to say anything, except what may be incidentally proper in giving our views upon some points still open for investigation.

In submitting to the profession any remarks upon a disease of such common occurrence, we are by no means insensible to the impression which so universally obtains, that nothing of a really practical character can be brought forward by any one, however learned or experienced. An abatement of the force of this feeling may be found in the fact, that it has been by constant, unremitting exertion, that we have obtained our present fund of information, and, that notwithstanding the humiliating term, *opprobrium medicorum*, still stands attached to it, there is good reason to believe that more labor will, as in times past, be rewarded.

In order that we may have some system in submitting a few thoughts on the disease, we will first give, what, for the want of a better name, we may call a

DEFINITION.

Tubercular phthisis, as all know, is a disease of the general system. During its progress it elaborates a certain morbid product, generally denominated *heterologous* or *heteroclite*, which has little,

if any, resemblance to the natural, normal, or pre-existing tissues of the body. The specific name of the product in question is *tubercle*, which, of all the heterologous deposits, is certainly the most interesting, whether viewed in reference to its frequency, the obscurity which envelopes its nature, or the attention it has always received at the hands of medical men. The morbid matter which we denominate tubercle, pervades the entire system; no organ or tissue that is free from its influence. Chemically, it is constituted of albumen, gelatin and fat, the first element largely predominating; organically it consists of granules, corpuscles and imperfect cells. From the form in which it fixes itself in the different organs and tissues, it has been divided into several varieties, the *miliary*, the *encysted*, the *infiltrated*, and the *lamellated*. The deposit of the morbid matter varies in size from a millet seed, to that of an orange; is of different colors, from the light gray of the granulations of Bayle, to the yellow, slate, or black; has different degrees of consistence, from a fluid, the form in which it is at first deposited, to the firmness of fibro-cartilage; is made on the free surface of the different membranes natural and adventitious, and in the parenchymatous substance of the various organs; increases in size by the superaddition of one particle of the heteroclite matter to another; possesses some degree of vitality, but not organized in the correct sense of the term; is collected, when occupying the lungs, its favorite seat, more frequently and copiously in the summit than in the base, and oftener in the left than in the right; affects all ages, but more common between 20 and 40; likewise both sexes, but more frequently females than males, in the proportion of 9 to 7; and lastly, the matter undergoes the changes of softening, absorption, or the conversion into the cretaceous transformation.

As a consequence of that most frequent change in the tuberculous matter denominated *softening*, we have cavities, excavations, or fistulous openings. Like tubercle, these cavities may occur in nearly every portion of the body, as the liver, spleen, brain, kidneys, bones, &c., but are most common in the lungs, and at the summit, more generally than at the base of the organs. They vary in size; have cells, which are at first soft and coated over with a layer of lymph, that often increases in thickness, and in some instances obtain the firmness of fibro-cartillage; contain generally pus, but sometimes

cretaceous or fibro-cartilaginous substance; are intersected with the remains of veins and arteries with their calibers obliterated, as if nature had thus made a provision to prevent hemorrhage; are capable of becoming cicatrized, by the secretion of coagulable lymph which fills up the cavity, thus obliterating it and giving rise to a contracted or puckered appearance.

Thus characterized anatomically, the disease is marked by certain other phenomena, not less indicative of its character. Among these we find — the fat from every part of the system absorbed; alveolar tissue deprived of its due amount of moisture; muscles rendered pale and flabby; cartilages, ligaments and tendons sensibly diminished; bones shrunk in circumference, rendered light, spongy, and almost completely deprived of their marrow; viscera reduced in size and firmness; skin blanched and thin; hair thin, with a tendency to drop off; nails soft and incurvated; blood thin and pale from a deficiency of corpuscles, and imperfectly coagulating, but often buffed, and in some instances cupped; osseous protuberances all over the body very prominent; chest flattened; shoulders stooped; general loss of muscular energy and strength; cough at first dry, frothy, afterwards attended with copious expectoration; pain in some portion or other of the chest; difficulty of breathing, varying from slight dyspnœa, to a distress bordering on suffocation; hemoptysis; pulse generally above the healthy standard, and usually very frequent, and small; fever of the hectic kind; diarrhœa usually present in the second and third stages; aphthæ of the stomato-pharyngean mucous membrane; œdematous condition of the feet and legs; capricious appetite; great sensibility to atmospheric impressions. Along with these there are certain phenomena connected with the respiratory movements, that should not be overlooked. These consist in alterations of the murmur, which is diminished in intensity in the affected portions of the lungs, and rendered puerile in those unaffected; expirations prolonged, and more intense; slight, dry, and crackling sound; sometimes mucous rhonchi; bronchial respiration, also bronchophony; cavernous rhonchi, respiration and cough; pectoriloquy; metallic tinkling; dullness on percussion, when the disease is in the incipient stages, especially in the infra-clavicular and supra-scapular regions, which during the progress becomes more and more complete.

With this meagre definition of the disease, we next proceed to the more immediate design we had in writing this article — a consideration of some of the many circumstances favoring tuberculosis; and the treatment which an enlightened view would seem to suggest as being the most rational.

CIRCUMSTANCES FAVORABLE TO THE TUBERCULAR DIATHESIS.

It is now beyond all question that the disease we are considering owes its origin to a certain specific matter, *sui generis* in its nature, and so different from every thing in the organism, or elaborated by it in its physiological state, that, when it finds its way into the system, it vitiates every tissue with which it may happen to come in contact. Whether this poisonous matter, when once perfected, is capable of producing, if introduced into the systems of other persons, diseased action similar to that which characterizes phthisis, is a question which, although gravely discussed at one period, we do not design at present to consider. The *materies morbi* owes its existence in the system, in many instances, to hereditary influences, but much oftener, perhaps, to causes over which the individual possesses more or less control. Among these we enumerate:

1st. *Sedentary habits — Confinement.* That sedentary habits and confinement are very prolific sources of the disease before us, is supported by a number of facts, not less than by reasoning founded upon the changes which must take place in the system from such a course of living. To all it is known that the inferior animals, when taken from their accustomed habits, and confined for any length of time in cages, become affected with the tubercular disease and die. Eminently is this true of tigers, lions, rabbits, &c. — animals, the habits of which are to spend much of their time in the open air, with their lungs actively exercised in trying to procure food. Precisely in the same way do individuals, or whole classes of individuals become affected by confinement. Who is unacquainted with the information brought forward in reference to this matter by Sir James Clark? and Dr. Knight of Sheffield? Having shown the relative frequency of the disease among those persons, the occupations of whom required little or no exercise, and which also have a tendency to irritate the lungs, such as obtains among stone-cutters, miners, coal-burners, flax-dressers, brass and steel-polishers, metal-grinders, needle-pointers, knife and fork-grinders, &c. But who has made

an estimate of the mortality which obtains among the shoemakers, the tailors, the merchants, the clerks, the students of the different professions, etc.? Our own observations, although limited to persons of the classes just enumerated, have extended through a period of some years, and they confirm the opinion long entertained, though we think very little appreciated, that their occupations also predispose them to lung diseases. Nothing has been more common than to see young men taken from the country apparently healthy, but after being confined closely in a town or city for a while, at some sedentary occupation, begin to show the evidences of diseased lungs; and, without seeming to appreciate the influence of the occupation upon their health, blindly continue in it until irretrievably diseased. Nor has this ignorance of the predisposing influences of confinement, related exclusively to the lower classes. Young clergymen, lawyers, and physicians, after having passed through the trying circumstances, to a constitution in any respect effeminate, incident to receiving their education, locate, perhaps, in a city, take an office, and disregard altogether the physiological wants of the system for exercise. Many such — indeed, I may say quite a large proportion of them — instead of realizing the bliss of their expectations in the business world, pass sooner or later into the domains of necrology, victims to the neglect of hygienic measures which it would have been a pleasure to them to have put into execution. At this moment, I have a young physician in my mind, dying of phthisis pulmonalis, whose life has been mostly spent in confinement — the cause, without any doubt, of his premature illness. A short time since a young lawyer applied to me for advice relative to a lung affection. Originally his constitution had been good, without, as far as I learned, any hereditary taint. Some years before studying law, he taught a school, which, together with his confinement in private pupilage, produced an effeminate condition of his system; and when I saw him he was evidently approximating a state of tuberculosis. I advised him to abandon his profession and go to farming. Heedless of my advice, because it conflicted with his future hopes of eminence in his profession, he continued in his office until his disease became confirmed. Few are by no means the number of clergymen, who contract phthisis from similar causes. The confinement incident to obtaining their preliminary education, seldom leaves the system free from some form or other of diseased action. This is usually disregarded, until, per-

haps, it ultimates in dyspepsia, a very common precursor of the disease before us. Thus affected, these young men enter upon the discharge of their ministerial functions. New duties and obligations seem to rest upon them in this capacity, and they make great efforts to succeed. Occupied the most of the time in their studies, preparing their sermons, they live upon light diet; think but little of the necessity of physical exercise; set up late at night, and sleep to a late hour in the morning. Spending the week in this way, the Sabbath at length approaches, the day for which all the rest of the days of the week, for them, seem to have been made. The respiratory and vocal organs, which, through the week, like all the other organs of the body, have had little or no exercise, are now called into vigorous and not unfrequently into immoderate action. This gives rise to hyperæmia, an unnatural accumulation of blood in the mucous membrane of the parts, the hyperæmia is succeeded by structural lesions, and thus the foundation of that very frequent affection called "*Clergymen's Sore Throat*" is laid. This, in connection with the debilitated condition of the general system, which obtains in such instances, and the perverted condition of the function of hæmatosis, sooner or later, ultimates in the deposit of heterologous matter in the parenchymatous substance of the lungs, which betrays its existence by cough, blanched skin, preternatural sensibility to atmospheric impressions, emaciation, &c. At this stage, and generally it is only at this stage, attention is awakened to the fatal tendency of such habits, and efforts are made to rescue the system from the influence of the disease, which are usually about as successful as they would be in rescuing a patient from small-pox, after the poisonous matter had been introduced into the system by inoculation.

More than males do females, in the proportion of 9 to 7, appear to be predisposed to phthisis. An explanation of this fact may, in part, be sought for in a consideration of the same circumstances that are so prolific of the disease in males. Without invoking the constitutional effeminacy of their sex, which, without any doubt, has some agency in producing a predisposition to the complaint, it may be stated, that their course of business and social operations which confine them almost exclusively to the house, is a very fertile cause of those general functional disturbances which pave the way for lung disease. Among the wealthier classes, our young ladies are sent at an early age to school; sometimes to those institutions denominated "*Infant*

Schools," than which nothing is more contrary to an enlightened view of the development of either body or mind. At these institutions they are frequently placed upon a regimen, or system of dietetics, the tendency of which is anything else than to furnish those elements to the system upon which its healthy growth and development depend. Here they are often confined, year after year, without any means of exercise, except what can be obtained within the limited enclosures of the institution, until "*their education is completed!*" After *graduating*, they are taken home; are furnished with some "*light*" work, requiring no muscular exertion at all commensurate with the wants of the organism, and perhaps a piano for evening amusement and recreation. Exercise in the open air, on foot, or on horseback, is not even thought of, as a means of maintaining a healthy condition of the system, or reviving the tone of functions embarrassed in their operations by previous confinement.

And what is equally objectionable, religious scruples in many instances, prevent these parents from permitting their daughters to attend any places of amusement, such, for example, as "dancing schools," the tendency of which is to develop the physical powers, and obtain the exercise so necessary to health. These habits of confinement, upon a class of persons who are to become the future mothers of our race, are not only instrumental in too often blasting all the prospects of the individuals themselves, and those of their parents, who have blindly and unconsciously aided in their formation, but they are witnessed in the feeble, degraded, scrofulous, constitutions of their offspring. Most of the hereditary disease of our day is, in truth, due to such causes. We cannot omit to mention in this connection the case of a certain family with which we have been, for years, intimately acquainted. The family embraced five young ladies. In all there was a hereditary taint of scrofula. Three of these young ladies married men, the business of whom required them to engage in an active and somewhat laborious course of pursuits. They were healthy, and raised families that enjoyed ordinary health. The other two married men whose business rather subjected them to sedentary habits. They both became unhealthy, had unhealthy children, and both died prematurely—one with phthisis, the other with a vitiated condition of all the functions, in which scrofula seemed to act a conspicuous part. There was no appreciable

difference in the constitutions of these young ladies. They all enjoyed moderate health at marriage, and the result was without doubt attributable to their habits of living. Another instance we will mention of a similar character. Two young ladies who were daughters of a farmer, married at the usual age; and at this event presented the general health and vigor of constitution which so commonly obtain among the daughters of men of that occupation. Their future occupations subjected them both to sedentary habits. Soon the blighting effects of such a course became manifest in a pale color of the skin, emaciation, dyspepsia, &c. The cause of their indisposition was overlooked, or rather not appreciated, and both prematurely fell victims, the one to phthisis pulmonalis, the other to a species of marasmus, in which all the great functions of life seemed to sympathise. But why multiply instances of this kind? They constitute a portion of the experience of every physician, and we might also say of every observing man. The great trouble is, they are not appreciated. Parents, intelligent on almost all other subjects, unconsciously permit both sons and daughters to form habits in violation of every physiological law of the animal economy, and what is worse, physicians, who know all about the evil effects of such a course, from the influences of fashion and other causes, too often neglect, in the education of their children, those great cardinal principles, without which the functions of the system cannot be healthily performed, until fatal disease has made its appearance, to reproach them for their delinquency in one of the most important duties of a parent.

Besides positive, we have much *negative* testimony, equally conclusive in showing that a want of exercise is a most prolific source of tubercular phthisis. As all know, the disease is not one peculiar to the human race. The inferior animals present numerous instances of it. It has been observed in birds, reptiles, and insects. In the different species of quadrupeds, such as the ape, monkey, horse, ox, elk, deer, antelope, sheep, goat, hog, bear, dog, cat, tiger, lion, squirrel, rabbit, &c., it has also been noticed. But there is an instructive fact connected with the disease, as it presents itself in these inferior animals. Its frequency among them bears no comparison to what obtains in the human race. A very small proportion of their number die from lung disease of any kind; and a still smaller one from tubercular deposits, except among those confined in me-

nageries, and the milch cows of the larger cities, that are kept from day to day in stables, where it is impossible for them to get any exercise. Their natural habits in the open air protect them. We also see but little of the disease among the aboriginals of our own country, or the uncivilized of the old world. Exempt also to a very considerable extent are those classes of our own citizens whose occupations oblige them to take a great deal of exercise in the open air; such, for example, as farmers, butchers, fishermen, wood-sawyers, &c. It was the remark of an old experienced physician, that wood-sawyers and others who do the drudgery of our cities, whenever predisposed to the disease, live to a greater age than others similarly constituted, but yet in good circumstances, and furnished with all the prophylactics that such a condition of life affords. This is a correct observation, and one that has been frequently verified in our own experience. It is, however, nothing more than a confirmation of the leading position which we are trying to maintain, viz: that exercise, even that connected with hard labor, is not only one of the means of hardening the system against the invasion of the complaint, but is far preferable to persons laboring under a tubercular diathesis, to the confinement and ease usually resorted to by this class of invalids. It was the remark of an eminent British physician, that persons in good circumstances less frequently suffered attacks of phthisis, than the very poor. This observation is perhaps true to a certain extent. Those in the higher circles of society in Europe, it is well known, are in the habit of cultivating every thing which has physical exercise in it, except labor. Fishing, hunting, riding on horseback, and, indeed, sports of all kinds obtain with them in an eminent degree. We read an account not long since of a lady of rank and fortune, who was in the daily habit of walking from eight to twelve miles for the purpose of ventilating the lungs. Characterized with such habits, there is of course an immunity from the disease to a greater extent than obtains among the pauper population, who are imperfectly fed, imperfectly clothed, and exposed to the influences of all kinds of weather. The same state of things, however, does not, as we suppose, exist in our own country. The wealthier classes here have not yet learned to take exercise of different kinds for the pleasure and immunity from disease which it affords; while the poor, or those who labor, are well provided for in all re-

spects, and not compelled to labor under so unfavorable circumstances. The result is, that the former class, who have the time and the means, but do not embrace them, suffer very much; while those who are poor, but whose occupations incidentally afford the requisite amount of exercise, are comparatively speaking exempt.

A consideration of the greater prevalence now than formerly of the disease before us, lends a support to the views we have advanced. Time was, in our own country, and the same remark has been applicable to others, that the disease was comparatively rare; but now there are good reasons for believing, that one-third of all the deaths which take place annually in the world, are due to it. As the habits incident to civilized society have obtained, the prevalence of tubercular disease has been augmented in a corresponding ratio. Again, in the towns and cities, where the population is dense, and as a consequence the greater proportion of the people prevented from taking anything like the requisite amount, under favorable circumstances, of physical exercise, a greater mortality obtains than in rural districts.

From what has been said, it would seem almost unnecessary to say anything further in regard to the influence of sedentary habits on the organism, and the manner in which the disease in question is produced where exercise is neglected. There are, however, points that require a more specific notice.

Constituted as he is, man, like every other animal or thing, indicates his capacities, properties, and relations. Among these, his capacity for motion is one of the most conspicuous traits that pertain to him as a mass of organized matter. This capacity is not more positive in the mechanical operations by which he passes from continent to continent, than in the chemical movements which occur in the brain as the result of a thought. Wherever capacities are conferred, obligations are imposed in regard to their use. So far as the animal economy is concerned, these capacities and obligations resolve themselves into physiological laws, as positive in their character as the existence of matter itself. An observance of these laws secures health, a violation of them brings disease. Now in the organism, we have movements that are voluntary and involuntary; or those that depend upon the will, and those not under the control of the will. The instruments of motion, the muscles, when kept performing the functions for which they were designed by nature, increase

in size and strength; indeed, increase their capacity in all respects. This is seen in the great muscular development of those classes of persons whose business requires of them a constant exercise of one organ or member, or of all of the organs and members of which the body is composed, as is observed in the arms of the blacksmith, the legs of the pedestrian, or in the whole system of a practical farmer. Of the involuntary muscles is this principle also true. In short, exercise to the muscular system is what thought is to the brain; it is a stimulus that is indispensable. But it is not alone in the muscular system, that motion or exercise is so necessary. There is not a tissue or organ of the body but what suffers when its health-maintaining influences are withdrawn. Every atom of organized matter connected with the functions of nutrition, sanguification, circulation, respiration, innervation, secretion, absorption, and excretion, suffers derangement to a greater or less extent.

Of the definition of phthisis pulmonalis, as previously given, a part is, that it is a disease of the general system affecting all the organs, and, as a consequence, all the great functions of life. It reaches its possession of the system, not, in general, by the abrupt invasion of a particular organ, or class of organs, but mostly through those debilitating and effeminate modes of living which make an insidious impression upon the principal functions of life. Coming in for a very large share of these morbid impressions do we find the function of nutrition. The conversion of nutritive matter into blood, and the changes which the blood undergoes in the formation of tissues, involve a series of processes, mechanical, chemical, and vital, each of which requires some notice.

Recent researches have demonstrated the fact, that the nourishing principles of food are always the same, consisting of *albumen*, *fibrin*, and *casein*, compounds of proteine, denominated in chemical nomenclature 'isomeric,' from the fact, that, although possessed of different physical properties, they have the same chemical elements united in the same proportions. These elements of food — albumen, fibrin, and casein, are the same, whether derived from vegetable or animal matter, existing, however, in greater abundance in the latter than in the former. When first taken into the stomach, through the influence of the gastric juice they are converted into an *albuminate of soda*, a homogeneous mass to which we give the name of *chyme*.

Passing from the stomach into the duodenum, the mass still retains its albuminous character, with the addition, however, of certain minute globules termed the *molecular base of chyle.* Approaching the mesenteric glands, chyle corpuscles, which are nucleated cells, now make their appearance, and the fluid acquires the property of spontaneous coagulation, which is now evidence of the presence of fibrin. In the thoracic duct these properties seem to be perfected, and finally, after having entered the blood vessels, and been submitted to the influence of oxygen, the elaboration becomes completed—the food is converted into blood. Or in other words, the albumen and fibrin of the food, whether derived from animal or vegetable substances, are separated from the redundant matters with which they are combined, and take their place in the blood as the formative materials out of which the organism is built up or repaired. In the stomach, it should be noted, albumen predominates in the form of albuminate of soda; in the mesenteric glands, fibrin—an evidence of the conversion of the one into the others in the process of digestion, as Denis and Mulder demonstrated to be chemically practicable outside of the body.

To the above elements of food we usually apply the term *nitrogenized.* Others there are, which, according to physiological researches, do not take a conspicuous part in the process of nutrition. Among these it is the present fashion to include fats, starch, gum, the different kinds of sugar, pectine, bassorine, &c., which are non-nitrogenized in their chemical composition, and which are regarded as the elements that support the respiratory process.

The fixing of these two great classes of substances in the organism we denominate *supply;* their removal, after having performed their respective offices, *waste.* In a healthy condition of the system, except during growth, supply and waste are *in equilibrio.*

Prepared we now are to apply these physiological principles to the elucidation of the subject before us. In no part of the nutritive process do we witness a single change of matter without its being the result of motion of some kind or other. The food is masticated by muscular contractions, and it is swallowed by the same forces. In the stomach and bowels the same forces are present during its conversion into chyme and chyle. The chyle passes by a peculiar kind of motion into the blood vessels, where it comes under the in-

fluence of the heart, an organ that performs the double office of a force-pump and suction-pump. All the materials of nutrition which exist in the blood, are forced by this organ, first to the lungs, where they become oxygenated, and after this to the various organs and tissues, each one of which separates from it, by a set of movements, for which we have no better name than that of *secretion*, its own peculiar substance, elementary or compound.

Now the series of movements connected with each of the processes we have noticed, have something like a positive character. They are just sufficient, when the system is in a physiological condition to enable each organ or tissue to answer the purpose for which it was designed. Less motion than the necessary amount, or, the way it is more commonly expressed, inactivity or torpidity of an organ, is not only followed by disease of the organ itself, but frequently by disease of the general system. Eminently this would be seen to be the case with the liver, provided it performed a less amount of labor than usual; with the kidneys, should they fail to secrete the usual quantity of urine; with the bowels, provided the peristaltic motion was in a measure checked; with the heart, should it cease to perform its usual number of contractions and dilatations; and with the lungs, should they cease to receive and transmit the necessary quantity of oxygen to the various parts of the organism.

Now it is just as unphilosophical to suppose that the general system can continue in a state of health without being subjected to regular daily motion or exercise, as that any of the individual organs, performing involuntary functions, can maintain a state of integrity under the same circumstances. What is true with reference to the parts, applies in this instance, to the whole. No sane individual would think of subjecting himself to any course of living that would impair the number of contractions of the heart, and yet this would be just as sensible as a course that would impair the amount of daily exercise necessary to health.

Now the various organs to which we have alluded, have each their individual functions to perform. Some, as previously remarked, are engaged in fixing matter in the system; others in removing it. Upon the fidelity with which each organ performs its functions, depends the welfare of the economy. In the class of organs engaged in the preparation of nutritive matter for the supply or growth of

the system, the first departures, as we have seen, from the physiological standard, are observed to take place. Under the requisite amount of the stimulus of exercise, the stomach secretes its usual amount of gastric juice, and that series of involuntary movements are maintained necessary to dissolve the food and give to it the character of albuminate of soda; the small and large intestines are enabled to impart to it the first traces of organization; and the mesenteric glands to complete the process necessary to it before entering the blood. What now is the result when the stimulus of exercise is withdrawn? The food, which assumed an albuminous form in the stomach, a fibrinous form in the mesenteric glands, and that of nucleated cells in the primary state of the tissues, is prevented from undergoing these successive changes. Some of it, there is reason to believe, is not at all dissolved in the stomach. What is dissolved and converted into albuminous matter, maintains this state, instead of taking the formative character of fibrin, until it reaches the blood vessels, from which it is deposited in the different organs and tissues. At first the deposition consists of very small granules, which attract other particles of similar character, until they obtain a size to which we give the name *tubercle*. In the form of tubercle these deposits are occasionally of a cacoplastic, but oftener of an aplastic character, and consisting of no cells or fibres, but a mere aggregation of granules, fat, globules, and albuminous matter, they, like other unassimilated matter, which finds its way into the system, act as irritants to the surrounding tissues, and in this way give rise to the diseased action connected with the first stage of tubercle; or, in consequence of their imperfect organization, alterations of a chemical character take place in their molecular arrangement, which give the first impulse to diseased action. Explained, however, in either way, the results are the same — a series of structural alterations owing their existence to foreign unassimilated matter, which, according to our definition, possesses all the characters of a poison, but which, under the influence of proper habits, might have contributed to the nourishment of the system.

It is not alone, however, in the functions of supply, that the influence of the causes we have been considering are seen to operate. Those organs, the office of which is to carry off effete, worn-out matter, become embarrassed. The lungs, for example, are not only

the media through which oxygen is supplied for the purpose of forming compounds designed to take their places as living matter in the formation of tissues, but they serve the purpose of furnishing the oxygen necessary to the forming of compounds with the elements of worn-out tissues, in which forms these elements pass out of the system. Examples of the latter process we see in the combination of oxygen with carbon in the air-cells of the lungs, and the consequent exhalation of carbonic acid. We also see it in the skin, in the elimination of useless matter from the system, such as water, muriates of potassa and soda, lactic acid, lactate of soda, and a small portion of animal matter. Besides the skin and lungs, we have the kidneys and liver, the former excreting urea and carbonate of ammonia, the latter secreting compounds of carbon, most of which unite with oxygen, and pass out through the lungs in the form of carbonic acid, while the remainder seek an outlet through the bowels. By all of these processes the amount by weight, of the matter daily discharged from the system, Ancell found to be — fœces 5 oz., 10 dwt.; urine 42 oz.; matter from the lungs and skin 81 oz. 13 dwt. 4 grains.

All of these transformations of matter are due to forces vital and chemical, that are accelerated or retarded by impulses which they sympathetically or otherwise receive from the voluntary movements to which the general system is subjected by exercise or labor. Their maintenance is seen in an expression of fidelity on the part of all the functions connected with the office of removing useless matter from the system. When they are withdrawn, by placing around the body a set of circumstances disposing it to inertia, such as obtains among persons of sedentary habits, the effects are immediately witnessed in a series of lesions of a functional or structural character. Sometimes these lesions manifest their presence in acute forms of diseased action, such as congestion, inflammation, &c.; oftener they are chronic, and make their appearance at first in effeminacy of the whole economy, emaciation, loss of muscular strength, great sensitiveness to atmospheric impressions; and, afterwards, in those general diseases depending upon a degradation of the tissues, and a deposit in their substance of matter that can perform no other office in the organism than that of exciting pathologic phenomena, such as often characterize the disease, the predisposing causes of which we have been considering.

[TO BE CONTINUED.]

ART. II.—*Medical Education.* By ASA D. LORD, A. M., M. D., Columbus, Ohio.

The subject of Medical Education has received a large share of attention within the last few years. It has been discussed in the National Convention, in State and County Conventions and Societies, and in private circles. The opinion is widely prevalent that the door to the regular practice of medicine is not sufficiently guarded; that many with attainments too meagre to fit them in any sense for the discharge of the duties of the profession, or to take that place in society which its members should hold, gain admission to its ranks. The educated physician is too frequently mortified by coming in contact with titled practitioners whose ignorance of almost every thing they should know, is a disgrace to themselves, and a reproach to the profession.

In regard to the cause of this state of things, different views have been held and advocated. Some have maintained that the difficulty lies mainly in the want of a better preliminary education; others, that the regular course of study and instruction is not sufficiently extensive; others, that the price of medical education is too cheap; and others still, that the whole course ordinarily pursued in Medical Schools is defective and needs an entire reform.

Without endorsing or opposing the opinions of any particular class on this point, we presume that most who have seriously reflected on the subject, are agreed that we must look to our Medical Schools for the proper education of the members of the profession. The time has been when (especially in the West) we were without such schools, when the student must pursue his studies in the office of some practitioner, and content himself with the small library it contained, and with such instruction as the business of his preceptor would permit him to communicate; and when the expense of a journey to New York or Philadelphia, and attendance upon a single course of Lectures was such that very few of our young men, or of those who had successfully commenced practice even could afford it. But the case is now entirely changed. With such facilities for elementary and academic education as are now furnished by our Public Schools and Academies, with a number of well-furnished and ably-manned Medical Colleges, giving Preliminary Courses gratis,

and a full course of Lectures for fifty or sixty dollars, none who have the energy indispensably necessary to succeed in the profession, can have any excuse for failing to secure all the advantages of a thorough medical education. In regard to the course generally pursued in our best schools, we have no suggestions or criticisms to propose. None can deny that it is much better than that pursued a few years since. The Preliminary Course is a decided improvement; the attention given to physical diagnosis, to microscopic anatomy, the fullness of the instruction in toxicology, chemistry and botany, and the increased attention to medical jurisprudence and insanity, afford to the students of the present day important advantages.

Leaving this topic, we proceed to call attention to the practice of conferring degrees, which has obtained in our Medical Colleges. For some reason only one degree, and this the highest recognized in the profession, is conferred; and this is bestowed on the student at the conclusion of his course of study.* So that the young man of twenty-one years, without having seen any practice, made or prepared a single prescription, watched or analyzed the symptoms of a case of disease, *might* receive the highest title known in the profession!

The influence of this course may be considered with reference to two classes of persons; first, students of medicine, and second, those who have commenced practice without attending Lectures. Can any doubt that the legitimate tendency is to lead young men who have received the desired title to relax their efforts for improvement at the very time faithful, vigorous exertion is most needed; to commence practising without reading and study; and thus to fall, from the beginning, into a habit of regular routine practice? And has not the fact that such young men, or those who resemble the case supposed above, acquire their honors so easily, done more to diminish the value

* In regard to the bestowment of degrees, a great diversity of usage has prevailed, both in this and other countries, but in all Colleges two degrees, Bachelor of Arts and Master of Arts are recognized. In some Universities the degrees of Bachelor and Doctor of Philosophy are conferred for attainments of a particular kind. In professional Schools the degree of Bachelor of Laws and Bachelor of Divinity are also conferred upon those who have completed the prescribed studies; but in Medicine only is the highest degree bestowed on the student at the completion of his course of study.

of a collegiate education in the estimation of those Practitioners who have not enjoyed its advantages, and to produce a feeling of disgust at the very idea of a title thus obtained, and to alienate their minds from Medical Schools and those engaged in them, than all other causes united?

We would therefore respectfully present for the consideration of the profession, and especially of those connected with Medical Colleges, the following modifications of the course which has hitherto been pursued. First, that instead of a single degree, at least two regular or academic degrees should be recognized in all institutions, Bachelor, and Doctor of Medicine. That the first degree should be conferred upon those who complete the regular course of study, with the understanding that the second should be conferred on them *in course*, only after two or three year's reputable and successful practice. The first degree might also be bestowed upon Practitioners on the same terms upon which that of M. D. is now conferred; and M. D. in course as upon the regular class graduates. Second, that there be devised a series of Honorary Degrees, such as Doctor of Medicine,* Doctor of Surgery,† Professor of Surgery, (or the like,) to be conferred upon those who have highly distinguished themselves in any department of their profession.

Can it be doubted that the plan first named would have a tendency to encourage young men to vigorous effort for professional improvement during the first two or three years of their practice, and thus to form habits of study and investigation which they would be likely to cherish through life? Would not this furnish Medical Institutions an opportunity for virtually repudiating their alumni who do not thus improve, or who by immoral or unprofessional conduct prove unworthy of their highest honors? In the present state of things,

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* True, the word Doctor means teacher, or professor; but since in this connection it has lost its original signification and is understood to imply Practitioner rather than Teacher of Medicine, there seems a propriety in adopting the custom which has obtained in some Universities, of conferring, in addition to the honorary degree of D. D., that of S. T. P., Professor of Sacred Theology.

† We are aware that the degree of M. D. is understood to mean Doctor of Medicine and Surgery; still, in the case of persons who have distinguished themselves by some important discovery or achievement in Surgery, there is a manifest propriety in bestowing the degree of Ch. D., or Ch. P.

nothing of this kind can be done. However unworthy the graduate may prove, he has his degree, the highest in their power to bestow, and the Institution which has conferred it is held responsible by the community for the character and the attainments of every alumnus. But upon the plan here proposed, by withholding the second degree after the time when a candidate would otherwise receive it, he is virtually disowned; and should State and National Medical Societies recognize the distinction by refusing to admit to full membership all such persons, it might be made of still greater importance to the interests of the profession.

The influence of such a system upon untitled practitioners could not but be favorable. They would then feel that the highest honors of the profession were not so cheaply obtained; and both they and the community would feel that the first degree was, as it should be regarded, only a certificate of attainments, of the fact that the recipient had pursued the regular course of study prescribed; while the second degree should be prima facie evidence of success in the practice of medicine.

The adoption and judicious management of such a system would unquestionably do more to raise the profession in the esteem of the community at large than any scheme with which we are acquainted. It would cause people to look with greater respect upon properly conducted Medical Colleges; to feel that these institutions were indeed the guardians of the character and attainments of the profession; that their honors were really the reward of merit; and that their own interests and safety were thus most effectually secured by the elevation and improvement of those to whom they are accustomed to intrust their lives and health. At a time when the title of "Doctor" is so easily assumed, when "Eclectic" and "Homœopathic" Medical Colleges are springing up on every hand, it certainly needs no argument to show that it is a matter of interest to every true physician to do what may be done to elevate the profession to the rank it should hold, and to render its members worthy of confidence and respect.

In regard to the whole subject of degrees in this and other professions, we are well aware that there are many who profess to place a very low estimate upon their importance; yet we are quite as confi-

dent that there are very few who are not, after all, influenced by them to a very considerable extent, more perhaps than many are willing to admit even to themselves. We hold that every possible incentive to improvement should be presented to the profession; that all its members should feel that the path to distinction is open before them; and since many of the most important improvements and discoveries in medicine and surgery are not attended by pecuniary or other reward, and the labor and effort necessary for their accomplishment cannot be performed without great sacrifice both of time and money, if there is in titular distinctions and honors a meed in view of which any would strive more earnestly to achieve what might prove of inestimable value to mankind, such honors should most certainly be conferred upon those who merit them.

Doubtless the plan here proposed may to many seem visionary and perhaps utterly impracticable. True, it will require time for this or any similar one to become known or gain favor, and it must have the co-operation of all the regular Medical Colleges in the Union to secure its adoption. The proper place for its discussion and for any decisive action would be the National Medical Association, but it can hardly be expected to be introduced there till it has been agitated in smaller associations and State societies. Believing therefore that the importance of the subject cannot easily be overrated, we submit these suggestions to the consideration of all who hold dear the character and usefulness of the profession, and especially of those who are personally engaged in medical education.

ART. III.—*Membranous Croup, as it appeared in the town and vicinity of Lewisburg, O., in the autumn of* 1850*; being the substance of a paper read before the Montgomery Medical Society April* 3*d*, 1851. By ISAAC KAY, M. D.

About the 1st of September, 1850, there appeared as an epidemic, in and about the town of Lewisburg, Ohio, a form of croup, which on account of its fatal character, caused not a little consternation amongst the people, and chagrin to the physician. Children between the ages of one and five years, were almost exclusively the subjects of this disease. There prevailed also at that time in this section of country to an unusual extent, scarlatina, cynanche-tonsillaris, and other more slight affections of the throat.

The aggregate of the cases of croup that occurred, and with which I had to contend, might be divided into two varieties, taking as the basis of classification, the mode of attack, if nothing else.

In one variety the disease (which usually commenced during the night,) was ushered in by the most violent throat symptoms, such as painful deglutition, difficult breathing, and a hoarse, barking cough. Children thus attacked, would go to bed apparently in good health; the first manifestation to the contrary being a great difficulty in breathing, accompanied by the cough, which from being loud and sonorous at first, became as it were a whisper or convulsive expiratory effort. The pulse was but slightly accelerated, tongue covered with a whitish fur, the skin generally moist, and often bathed with profuse perspiration, caused, no doubt, by the great difficulty under which the patient labored in getting breath. These cases which were characterized by a sudden and violent onset, although they seemed to be more alarming than the other variety in the commencement, were by far the more amenable to treatment. I viewed these cases as consisting of slight inflammation of the mucous membrane of the larynx and trachea, which threw the small muscles immediately surrounding the latter organs, into spasmodic action. An emetic dose of Tinct. lobelia would suffice to remove all the urgent symptoms for the time being. About the only treatment following the administration of the emetic, was a brisk purgative of calomel and rhubarb, after which if the cough and dyspnœa continued, a sufficient dose of a mixture composed of oxymel of squills, two parts, and Tinct. lobelia, one part, was given every hour to keep up constantly a slight nausea of the stomach. In these cases the inflammation seemed to be confined more particularly to the vocal organs, or in other words, to the larynx and its immediate appendages; there being to all appearance no extension whatever of the disease into the trachea. Of this class of cases, however, no particular notice was taken, owing to the treatment being altogether effectual, and for want of any peculiarity in the pathology.

The other variety of croup, and that to which I wish more especially to direct the attention of the profession, differed somewhat from the first mentioned in symptoms, and no doubt more so in its essential pathological character. It may be observed that as contra-distinguished from the variety first described, it commenced with the

mildest of symptoms, which to the superficial observer would not have betokened any serious result. The child for a few days previous to the attack of the disease, appeared drowsy and fretful, with a heaviness of the eyes, and suffused condition of the conjunctive and schneiderian membrane. The most prominent symptoms evincing the true character of the malady, was the—I had almost said—pathognomonic cough which from the beginning had a shrill, metallic sound. In some cases the cough did not set in until after the patient had been laboring under the marked signs of the disease, such as dyspnœa, broken pyrexia, &c., for twelve or twenty-four hours. The breathing would become so difficult as to cause the little patient to violently throw its head back in order to afford a more full passage of air into the lungs. The cough would sometimes become hoarse and rough, in which case there was thrown up a substance resembling the fragments of loosely organized membrane. A short time before the expulsion of these shreds, a flipping or crackling sound was heard, caused no doubt by the agitation of disengaged portions of the membranous substance lining the larynx and trachia. I have no hesitation whatever in expressing belief of the existence in these cases of a deciduous membrane lining the interior of the above mentioned organs, and perhaps even the bronchia.

That the affection properly called croup is confined to the trachea, does not seem to accord with the views of our best writers upon this subject. At least so far as we are able to ascertain, there is the same kind of diseased action in the mucous membrane of the larynx and trachea that we have in the trachea, and it is reasonable to suppose that the essential pathological condition should give rise to the name in preference to anything else. After the stridulous respiration commenced in what we shall now term membranous croup, a grayish colored patch was almost always seen upon the fauces, and especially in that part immediately posterior to the tonsils. Upon pushing down the root of the tongue and inspecting this region, the above mentioned condition of the mucous surface could be easily seen, and its presence might be taken as good evidence of the existence of the preternatural membranous function in question. As the disease progressed, the breathing became more labored, the cough more shrill and ringing, there was complete aphorna, and the febrile excitement was high, as was indicated by the frequent pulse, and the exalted

temperature of the cutaneous surface. The patient often changed from one position to another in its almost fruitless attempts to get breath, until the scene was terminated either by dreadful spasms and immediate suffocation, or by a subsidence of all the violent symptoms and a calm and comparatively easy death. Having been under the painful necessity of witnessing the fatal termination of so great a proportion of the cases that came under my personal attendance, I began to review the whole subject of the pathology and treatment of croup as noticed by our ablest medical writers, and I found that as yet no remedy had been devised which would with any certainty arrest the formation of the false membrane, and that our means of removing it when formed, was, if anything, more inefficient still.

The usual means adopted by practitioners of medicine, such as bleeding, emetics and mercury, seemed to have little or no influence whatever upon the disease. Emetics would relieve the patient for a short time, but they afforded no permanent benefit. Bleeding was also instituted in the first case that occurred in the place, but as the good resulting therefrom could not in the least be observed, and as it seemed rather to prostrate the patient without diminishing the intensity of the local inflammation, all hopes from this remedy were abandoned. Mercury in minute and frequent doses was administered with a view to control the peculiar inflammation which was throwing out the coagulable lymph that concreted upon the mucous membrane of the larynx and trachea. But to all appearance, influence exerted by this remedy was very slight. The calomel was sometimes combined with ipecacuanha in sufficient quantities to keep the system somewhat relaxed, and thus if possible to control the febrile excitement. From the fact that the means already enumerated are competent to arrest and cure all the ordinary forms of croup, even the most severe inflammatory variety, it is evident that these cases with which we had to contend differed very essentially in their pathology from ordinary croup.

There was a strong tendency of this disease to run a certain course, and those cases which survived did run through that course in despite of every thing that could be done to the contrary; showing most conclusively that the wisest plan of treatment was, in the *first place*, to sustain the powers of life and to prevent suffocation; thus giving sufficient time for the disease to complete its course; and, *secondly*,

to assist as much as possible the natural efforts that were being made to rid the system of the malady. Accordingly, every thing of an irritating character, especially emetics, were studiously avoided. On account of the specific nature of the local inflammation, those depleting remedies which are so commonly used with success in the various phlegmasia, served to impede rather than promote the series of changes through which the disease had to pass. Local applications to the throat were used to assist the mucous membrane in the suppurative process by which the false membrane should become detached and thrown off. The inhalation of various kinds of vapors were also used, particularly that of the weak infusion of mullein. Means were adopted, from time to time, for the purpose of subduing the laryngeal spasms arising, I think, from the lessening of the aperture through which the air had to pass into the lungs. The only internal local remedy used was the nitrate of silver in solution. Four grains dissolved in an ounce of rain water, was found to be of sufficient strength, when applied to the membranous concretion in the fauces, to change the unhealthy condition. In some cases where death seemed to be very nigh, as evinced by the almost intolerably difficult breathing, spasms, &c., the urgent symptoms were all immediately relieved by the introduction of a probang into the larynx, to which was neatly adjusted a piece of fine sponge. This sponge was saturated with a weak solution of the nitrate of silver. After withdrawing the instrument the shreds already spoken of could be seen adhering to the sponge. The little patient would fall into a calm refreshing sleep, and be left in a state very much resembling convalescence, for twelve or fifteen hours, after which the disease would rapidly extend down into the trachea and even to the broncha, in which case it was impossible to afford any relief by the probang, or by any other local application. To my mind there seemed to be so slight relation between the *remedies used* and the *cures performed*, that I was ready to conclude that the former had little or nothing to do in accomplishing the latter.

The foregoing observations upon the general plan of treatment, have been made for the purpose of eliciting the opinion of some contributors to the Journal upon a subject which has caused so much discussion, and about which I know comparatively so little. I will close this article by saying that the number of cases which came

under my attention, and that were undoubtedly membranous croup, was ten, all of which occurred in the neighborhood within about five weeks time, commencing about the 1st of September of last year. The other physicians of the place, then four in number, had probably a like number of cases with myself. Of these ten, seven died and three recovered.

ARTICLE IV.—*Tracheotomy in case of Croup.—Cure—Inconvenience of the prolonged use of the Canala.* By M. MAISONNEUVE. Translated from the French by the Editor.—*Gazette des Hopiteaux.*

Weber (Emile) aged 5½ years, brought to the Hospital Cochin 26th June, 1851, in the last stage of severe croup. Six days had already elapsed since the attack. Emetics had been administered freely, leeches had been applied to the neck, sinapisms to the feet and hands. At the moment when the patient was presented to M. Maisonneuve, the patient appeared to be dying, respiration was performed with the utmost difficulty, the pulse was small, feeble and irregular.

M. Maissonneuve decided that there was not a moment to be lost, and, without leaving the spot, practised the operation of tracheotomy.

The operation was simple and rapid—in a moment it was followed by the expulsion of a false membrane three centimetres long and one and a half in width and very thick. A simple canula was introduced into the wound and fixed by a tape passed around the neck, then the little patient was placed in bed where it immediately fell into a profound sleep.

M. Maissonneuve directed his interne to wash the canula, not to clean it except by first elevating it considerably from its position, and then afterwards to replace it—this manœuvre being much more easy and less fatiguing to the patient. These instructions were followed exactly.

The next day at the visit, the little patient was perfectly calm, respiration was easy. In the night it had thrown up another false membrane of nearly the same dimensions as the first. Auscultation revealed no grave implication on the part of the lungs—fever was moderate. The canula was again elevated, cleaned and replaced.

On the second day it was removed altogether. M. Maissonneuve regarded the prolonged use of the canula in trachea as one of the most common causes of consecutive pneumonias under which so many little patients succumb after the operation of tracheotomy. Already, said he, have irritating injections and even simple aqueous injections been laid aside because they are observed to favor the development of the more serious inflammations of the pulmonary parenchyma. Hence the prolonged presence of the canula produces analogous inconveniences and effects. It can never be useful after thirty-six hours. The fact is that the moment when the canula is removed deglutition becomes more easy, and the little patient rapidly advances towards a cure.

July 8, cicatrization of the wound was complete, and the 18th of the same month the child went out in a state of perfect health. It had increased in flesh in a remarkable manner, and spoke with as much facility as if it had never submitted to an operation.

ART. V.—*Lusus Naturæ.* By J. S. WILSON, M. D., Selma, O.

A remarkable instance of Lusus Naturæ, having fallen under my observation, I thought a sketch of such a freak of dame Nature might be deemed worthy of record.

On the 16th inst. (Sept.) I attended Mrs. G. in her 12th accouchement. She assured me there "must be something wrong, as she had never before felt as she had this time."

On examination, per vaginam, I found a breech presentation; and on extending my finger in front of the abdomen of the fœtus, I encountered a *large, soft mass* of a mysterious character.

I informed the patient that the child was dead; and that she might congratulate herself on the fact, as there evidently existed a large and unnatural appendage to its abdomen.

The labor was characterized by no peculiar phenomena, being of a very mild character.

On delivery, I found the soft mass which had elicited my curiosity, to be an *extraneous formation* of the Viscera of the abdomen.

From the degree of decomposition, I infer the foetus had been dead a fortnight. The patient says, she "never felt it like her previous children, but it only produced a sensation like something rolling about."

Not having time, then, to institute a post mortem investigation of said mal-formation, I returned next morning in conjunction with my student, Mr. Joshua Swayerd, and resorted to as minute an autopsy as the decomposed condition of the subject would enable us.

Though the full term of utero-gestation had elapsed, the ossification of the fœtal cranium complete, the convolutions on the surface of the brain numerous, and the cineritious portions distinguishable by their color; yet, not only the lobes which composed the cerebrum, but also the cerebellum, and the basis of the cerebrum were perfectly soft and pulpy, and wholly destitute of firmness or consistence, exhibiting a state of apparent complete disorganization. The heart, lungs, pancreas, kidneys and bladder, appeared sound and natural in situ. The œsophagus extended through the umbilicus, where, just at its termination in the cardiac orifice of the stomach, existed a morbid adhesion with the parietes, forming, as it were, a suspensory ligament, to which was appended a mass consisting of the stomach, small intestines, coecum and colon, the liver and spleen, the gall-bladder was full of black bile.

The umbilicus was not of greater dimension than ordinary, and exhibited no lesion, but was closely attached to the cord.

The funis was marked by no unusual feature in its distribution.

The preceding viscera were covered by the reflections of peritoneum, as in their natural organization in the abdomen; in fact, the only anomaly consists in their *Mal-Position.*

The toes were all morbidly attached to each other — so were the fingers — the wrists and ankle-joints were bent rigidly inwards, as in carpo-pedal spasms. There was also a distortion of the muscles of the face, the mouth being drawn to one side.

Quere. Might not this distortion of the mouth, and the contracted state of the flexor muscles of the limbs, be consequent upon convulsions, emanating from this *emollissement*, or softening of the cere bral mass?

I might remark, en passant. that, about the 2nd or 3rd week of hor gestation, the house of Mr. G. was (in the night) burned to the ground — and Mrs. G. being thus aroused from her slumbers, surrounded by flames and fragments of the house tumbling over and around her, naturally received a very severe alarm.

Quere. Had this affright an agency in this mal-formation, or Lu sus Naturæ?

PART SECOND.

AMERICAN INTELLIGENCE.

ART. I.—*Case of the Destruction of the Lower Jaw and of a portion of the Face, under Homœopathic treatment;* also the result of a novel operation made for the restoration of the Lower Lip, with some remarks on the formation of new skin. By FRANK H. HAMILTON, one of the Surgeons to the Buffalo Hospital.

Martin Neuman, seven years old, was attacked on the 10th of August, 1849, with a mild dysentery. The family were German and sent for a German Homœopathist, who gave him at once small pills which "looked and tasted like sugar!" also a powder and a solution.

Within seven days from the time the medicines were commenced salivation began, and small ulcers appeared upon the inside of the mouth, upon the gums, &c. Three days after the ulceration had extended so rapidly that the lower lip was nearly separated, and in a day or two more it fell off entirely. Three months later the greater portion of the lower jaw came away in one piece, being two and a half inches long, and including the whole diameter of the bone with its corresponding teeth. The bone and teeth are now in my possession.

It is a coincidence somewhat remarkable, that the sister, Amelia, several years older, was ill in the same way and at the same time (it was during the prevalence of the cholera in this city,) and took medicines from the same man, viz: solutions, &c., and within one week she was severely salivated also, and her mouth became ulcerated, but no destruction of the bone or of the soft parts ensued.

In January, 1850, the lad was brought to me, by his father. The lower jaw was then reproduced through the whole extent of that which had been destroyed, but the teeth were of course not replaced; nor was there a vestige of a lower lip, and even the bone was thinly and imperfectly covered with integument. His condition was distressing in the extreme, since he could masticate only with great difficulty, and his saliva was constantly pouring upon his chin, excoriating his face and neck, and saturating his clothes.

First operation for the restoration of the lip. Jan. 14, 1850, in the presence of the class at the Medical College, I abraded the upper edge of the skin corresponding to the lower lip, to the extent of a quarter of an inch each way from the centre; from either extremity of this horizontal incision I cut perpendicularly about one inch, and then starting from the lower end of these incisions, I carried the knife outward and downward to the left, and outward and downward to the right, one inch and a half. The two lateral pieces thus marked out, were now dissected from the jaw and slid upward and drawn together with sutures above the central piece; the lower edge of the lateral pieces thus united were stitched also to the upper and abraded edge of the central piece.

The object in leaving a central piece attached to the jaw, and uniting the lateral pieces above it, was to prevent the lateral pieces, which were to constitute the new lip, from drawing down again by the contraction of the wound below. The plan was original, I believe, and proved successful. The new lip, however, became, in process of time, through stretching and shrinking, insufficient, and I made a second operation to increase the depth of the lower lip, and prevent more effectually the saliva from dribbling from the mouth.

Second operation, Aug. 28, 1850, at my office, in presence of Drs. Samuel Carey, Camp, and others. My mode of procedure was entirely new, and as I believe, has established an important principle in this class of operations. The operation was as follows: A single incision was made just under the chin, extending along the lower edge of the inferior maxilla about three inches from side to side. All the integument comprised between this horizontal incision and the upper edge of the lower lip, was now raised from the bone, and the entire mass was slid upward until its lower edge was made to correspond with a line just below the upper border of the jaw. Here this edge was made fast to the *periosteum*, by several interrupted sutures. The gaping wound below was left to close by granulation. The result has been that adhesion occured between the lower edge of the flap thus secured, and the periosteum, and no disposition was afterwards shown in the flap to draw downward as the wound cicatrized; but on the contrary, the skin from below, that is, from under the chin and the neck, was somewhat drawn upward, and thus between the

formation of new skin and contraction of the skin from below, the wound closed.

The new principle established is that, *by attaching the skin directly to the* PERIOSTEUM, *its displacement by cicatrization, and contraction, is prevented.* Every one who has operated for the restoration of the lower lip will see the advantages which this plan offers. There is nothing to which the upper, free border of the new lip can be attached, and there is consequently nothing but the mere transverse tension of the lip, to prevent its descending as cicatrization progresses below. This tendency I sought to avoid in the first operation by leaving a central piece untouched and adherent to the bone, and then bringing the new lip above it. But this procedure requires a sacrifice of a portion of the transverse diameter of the lip, and is often wholly inadmissible; and always objectionable, if the same end can be attained by another mode. This new mode, as we have demonstrated, prevents the sliding downward, without sacrificing any portion of the lip. These remarks are applicable especially to cases of *complete* loss of the lip. Where only a portion is lost, various other methods of supplying the deficiency may be practiced; as by stretching the lip, or sliding from the cheeks, or even by an operation of "torsion" from the cheeks.

This idea originated in having observed elsewhere the capacity of periosteum to form skin. I have several times proved, contrary to the often repeated doctrine, that skin may form *de novo*, independent of old skin; as where there has been an extensive destruction of the integuments over a bone — where the parts have been torn away or have sloughed quite to the periosteum, and consequently no old skin could have been left from which the new could form, except at the edges; yet in the very centre of this broad ulcer new skin has sprung up like an oasis, and gradually spread outward in all directions. But this has always been where the periosteum was actually exposed, which first becoming white and spongy, has soon shown itself to be the nucleus of a new skin — in fact it has become *itself converted into skin*, remaining ever afterwards depressed, immovable and adherent to the bone at that point.

The result of the case of the lad Neuman, is that he has a lower lip, sufficient to cover the gums and a part of the bodies of a set of artificial teeth which our ingenious dentist, Dr. Harvey, has made

for him. The lip is narrow, for we have not yet been able to prevent the contraction and rolling in of the upper edge as it heals, but it would certainly have been much narrower, or entirely lost if the adhesion to the periosteum had not been effected.

I will not omit to say that by the constant effort to use the lower lip, or perhaps simply by the lapse of time, the lip has very perceptibly lengthened in its vertical diameter during the last six months. —*Buffalo Medical Journal.*

ART. II. — *Penetrating wound of the Abdomen — protrusion of Omentum — its removal — Recovery.*

The case of penetrating wound of the abdomen, was attended with protrusion of omentum — the treatment resorted to not being that in ordinary practice, and the favorable result attending it sufficiently justifies a full history of the case.

Mary Ann Lloyd, colored, aged 21, was admitted into the Hospital on Saturday, June 21st, at 11½ P. M., with a stab in the left groin, which she had received half an hour previous, from a person with whom she had some altercation in an Alderman's office. Skin was warm and moist; pulse good; complained of considerable pain. The wound was about three-fourths of an inch long, about half an inch above, and parallel to, Poupart's ligament — a line drawn from the anterior superior spinous process of the ilium to the umbilicus, would exactly bisect it. From it, protruded a piece of omentum of about the size of the palm of my hand, slightly congested, but otherwise healthy in its appearance. Careful efforts were made to return it, and were partially successful; but the restlessness of the patient was such as to force out as much as I would return. The prospect of success caused these efforts to be continued for half an hour, when it was deemed advisable to desist from them; the omentum had then become so much congested that it was not thought even safe to return it by dilating the wound. It was therefore concluded to cut it off. This was done — having previously passed a double ligature through the mass, close to the integuments, and strangulating it. The strangulating of the omentum was attended with very little pain to the patient. The wound was then closed with interruptured sutures. Within the sutures was included the portion of omentum strangula-

ted by the double ligature. The object of this was, to prevent its return with the ligatures into the cavity of the abdomen. Over the wound was placed a piece of cotton cloth spread with cerate, and retained by one or two adhesive strips. Ordered Liq. Morph. Sulph. 3j. To be repeated every two hours, until sleep is induced.

Sunday morning, the 22d. Required but 3ij. of the solution of morphia to induce sleep, which was tranquil through the whole night. Pulse 90, full and strong; skin, moist and warm; tongue clean; still complains of pain in the abdomen. Ordered Hydrarg. Chlor. Mit. gr. ij. Pulv. Opii. gr. ss. To be repeated four times during the day. Fomentations with hops to the abdomen. Diet, barley water.

6½ P. M. Has been dozing all day; does not complain of any pain; abdomen perfectly flaccid and free from tympanitis. Omitted the fomentations. Continued the calomel and opium. Pulse 88—full and strong.

Monday, 23d. Slept well through the night. Purged slightly by the calomel. Pulse 95, less strong than yesterday. Tongue slightly furred — complains of slight pain in the side opposite to the wound, but of none in its neighborhood. Abdomen perfectly flaccid. Reduced the quantity of calomel — thus,

Hydrarg. Chlor. gr. j.
Pulv. Opii. gr. ss.

To be repeated four times during the day. Diet, same as before.

Tuesday, 24th. Rested well through the night. Pulse 85, no pain or uneasiness — mouth slightly sore. Omitted the calomel. Diet, barley water.

Wednesday, 25th. Still entirely free from pain. Wound has very much diminished in size — there is a slight discharge from the cut surface of the omentum. No tension of abdomen — merely a small ring around the wound, harder than natural. Applied flax seed poultice — diet, gruel.

Thursday, 26th. On visiting the ward last evening found the patient walking about with a blanket over her shoulders, assigning as a reason for her doing so, that she was tired of her bed. This morning the edges of the wound show some disposition to slough, otherwise the patient is doing well. Pulse natural, no febrile excitement — no tension of abdomen — appetite good. Ordered full diet.

July 1st. Has been doing well since last report. The slough has

entirely separated, leaving an ulcer about two inches long and one inch broad; the ligatures of the omentum came away this morning.

August 2d. The wound has been healed for some days now, having granulated from the bottom — the cicatrix is small, firm, and linear in form. Patient discharged, well.

ADDINELL HEWSON, Resident Physician.

Pennsylvania Hospital, August 15th, 1851.

ART. III.—*Report of an Obstetrical Case.* By J. R. PALMORE, M. D.

Mr. Editor—Supposing the recital of the following case, which occurred in my practice whilst connected with the "Obstetric Institute" in Philadelphia, will be acceptable to you, and interesting, if not instructive, to the readers of your valuable magazine, I have taken the liberty to transmit a condensed report of it from my case-book for publication. It involves a question in obstetrics which has always puzzled the young physician not a little, and which I hope this case will, at least, serve to direct the attention of practical physicians to—the elucidation of the mystery with which teachers and books have surrounded it.

Case.—April 10, 1850. Mrs. M. G. was seized with labor pains this morning. The labor proceeded very well (the vertex presenting the first position,) till the head emerged from the vulva. At this time the child took several deep inspirations and cried lustily. I immediately perceived, however, the umbilical cord around its neck, and, on more minute observation, discovered it drawn *thrice* very closely. The pains were now very severe, of the expulsive kind, which caused the funis to become tighter at every effort. I endeavored to pull the cord down and pass it over the head, but soon found the attempt useless from its extreme tenseness. I next attempted to disengage and suffer it to pass over the shoulders as they descended. This was also of no avail, for I could scarcely insert one finger between the cord and neck, so closely was it fastened. My next duty, I conceived, was to suffer it to *remain*, or, in other words, trust to the *vis medicatrix naturæ*. This negative plan was as nugatory as the others had been unfortunate. The child which before had cried, now ceased. Its face became at first dusky, then black, exhibiting plainly the compression of the jugular veins and the consequent

stagnation of the blood in the brain. Here, then, was no time to be lost. The only alternative at my command was to sever the funis. But here (I should not call it *a demon*) authority arose before me. Dewees, Ramsbotham, Meigs, Hodge, whose opinions we all recognize, passed in rapid review. I remembered only one *similar* case, that mentioned in Dr. Meigs' "Treatise on Obstetrics," page 295. That this was a similar case, I had no doubt. I resolved, therefore, to cut the cord, which having been done, the child, released from its halter, soon revived; its face gradually assumed its natural hue; its breathing again commenced, and the mother's heart was illumed afresh by its re-awakened cry. A few bearing down pains soon sufficed to drive the child from the vulva. I now tied the cord. Nothing unusual occurred in the after treatment.

Remarks.—It will be noticed that I pursued the usual course of treatment laid down in the books, and found this routine practice totally unavailing. Since the occurrence of the above case, I have examined the subject pretty closely, have maturely considered the salient points of the practice, and have come to the conclusion that the treatment usually recommended is, at least, irrational, if not radically defective, and that it will not answer in practice.

Upon a superficial examination, I know some may say that the success of the above case was *post hoc*, and not *propter hoc*. But if such persons would examine attentively the details given, they could not, in my opinion, refrain from being convinced that it was *propter hoc*.

What are the dangers that are so particularly inculcated by teachers? There is only one, and, to my mind, this scarcely deserves the name of danger. I refer to the *supposed* probability of the child's dying from loss of blood. I say *supposed*, because I cannot conceive why this can take place, as the child's body presses the cord against the vulva, effectually serving the purpose of a ligature. And this actually occurred in the case I have just narrated. The oss of blood was scarcely appreciable. This is the most prominent, if not the only objection that can be urged against the treatment.

The advantages are numerous, and, in my opinion, insuperable. It saves the child from impending death, and it empties the *placenta* of its retained blood, thus allowing it to be more easily detached by efforts of the uterus, or, if necessary, by the hand. Moreover, if the cord were suffered to *remain* around the neck, and the child to descend, the cord might be torn from the *placenta* by the roots, or else

it might draw the *fundus* of the uterus after it, and cause *inversio uteri.*

Those who have had this latter affection to deal with, will easily appreciate any plan recommended for its partial prevention.—*Stethoscope and Virginia Med. Gaz.*

ART. IV.—*Cure for Tape Worm.*

Procure sufficient seed of the Pumpkin (those grown in the West Indies are the best) to make two ounces after removing the outside shell of the seed; put them into a mortar and add half a pint of water; pound them well up, and make a liquid orgeat of them, which strain through a cloth. Drink this mixture in the morning on a fasting stomach. If it does not operate in the course of an hour and a half, take one ounce of castor oil. Drink all the time as much fresh cool water as the stomach can bear or contain; that is, drench yourself with water. After taking the orgeat, if the stomach is well rubbed with ether, and an injection of about 60 drops of it is taken, you will find it an assistant to the orgeat, but this may not be necessary. Should the first application of the remedy not answer, repeat it the next morning, and there is no doubt your complaint will be removed. The worm will leave the patient all at once, and probably entire. This can be ascertained by finding the small end or head of it, which tapers almost to a point.

P. S.—The New York friend, from whom I received the recipe, of which the preceding is a copy, in March, 1848, remarks, in support of his opinion of the efficacy of this remedy, that Capt. ——— says he did not have to take the injection, although he took two separate doses of the seed (the first not operating sufficiently,) which relieved him at once, and since which time has cured probably a dozen different persons afflicted with the tape worm, who had been given over by the physicians. The worm from him was 34 feet long, each link about one inch. He rubbed the stomach with ether, after taking the orgeat. It may be advisable to use the forenamed remedy under the advice and with the assistance of a physician." I have only to add, that the suffering lady in this city, for whose relief the writer's aid and influence was solicited by her husband, has been restored to perfect health, after years of prostration and efforts for relief; and in thankfulness for the interest I had manifested in the case, sent me a glass jar containing a large part, if not the whole, of the worm that had been her tormentor for several years.—*Boston Med. and Surg. Journal.*

ART. V.—*Remarkable migrations of a Pin and Needle through the body of a Young Lady.* By NAPOLEON B. ANDERSON, M. D., Louisville, Ky.

On the 20th of April, 1849, Miss Catharine M——, æt. 19 years, in a fit of laughter accidentally swallowed a large brass pin and a medium sized needle. No pain attended the passage of these bodies into the stomach, nor was any felt until after the expiration of about the third week, at which time a warm, pricking sensation was first felt in the cardiac orifice of the stomach, which position it maintained for the space of three months, when it gradually changed, and seated itself in the lower lobe of the left lung. In this situation it remained for some nine months, without any disturbance to the organ of respiration, in which it was felt, with the exception of occasional cough and slight hemoptysis. During this period, the pain gradually moved to the glenoid cavity of the scapula, and was experienced at the insertion of the deltoid muscle, in which situation considerable pain was the result of elevation or rotation of the arm. From this point it moved to the arm pit, when the arm had to be carried horizontally, and no elevation, rotation, adduction or abduction could be performed without excruciating pain; the inner part of the arm turning very black, from the infiltration, I suppose, of blood into the surrounding parts. Pressure upon the parts produced no material change in coloration, nor was there any unusual amount of sensation or numbness in any part of the discolored portion, with the exception of the region in which these foreign bodies were situated. The arm remained in this condition, with no material changes, until December, 1850, when the pain and uneasiness moving from the arm-pit, towards the articulation of the ulna and radius with the humerus, settled in the belly of the biceps flexor muscle, forming there a dark spot the size of a half dollar, and very sensitive to the touch. An emollient poultice was applied for twenty-four hours, when fluctuation indicated the use of the knife. A quantity of blood pus was discharged, and the needle and pin were extracted from two different apertures, about half an inch apart. The pin was dark, but the needle was bright, and had undergone no material change. Alteratives were used, and in ten days from the extraction of the bodies, the lady had perfect use of her arm, and has continued to do so ever since. During the period, from the swallowing of these substances

until their removal, the constitution was not disturbed in the slightest degree, except the cough and hemoptysis spoken of; and this continued only as long as those articles were passing through the lungs, after which the symptoms disappeared. The lady underwent no treatment during their migration from the mouth to the arm, with the exception of a purge when she first swallowed the articles, and anodyne embrocations afterwards.

These pointed bodies appear to have travelled side by side over the entire route from the mouth to the point at which they were extracted, and must, in their course, have passed through the stomach, diaphragm, lung, pleura, among muscles and bloodvessels, before reaching the parts from which they were extracted. The points of each article presented at the incision made, and must have thus passed the entire distance.—*Western Jour. of Medicine and Surg.*

ART. VI. — *Report of Medical and Surgical Cases occurring in Bellevue Hospital.* By STEPHEN SMITH, M. D., Assistant Surgeon.

CASE 2. Catharine Hearne, 22 years of age, native of Ireland, was admitted September 1st, 1846, suffering pain in the right knee. She said that she had experienced this pain occasionally for two or three years, without any known cause, and leeches had been applied for its relief to the affected knee. She has strong hereditary predispositions to phthisis, and has latterly lived very poorly, being confined to a damp room.

During the first few months of her residence in the hospital, the nature of her disease remained obscure, the affection of the hip-joint manifesting itself only through the pains of the knee, and hence such remedies as were used tended only to relieve what was considered a disease of this joint. The complaint soon began to define itself as true hip disease, and her treatment was directed accordingly. Counter-irritation in the form of issues, setons, &c., was constantly kept up in the neighborhood of the joint for nearly three years; and, although during this time several abscesses formed, leaving sinuses which discharged matter freely, her general health continued remarkably good, and bony anchylosis seemed to be taking place. The following note of her case made at the end of this period, as

copied from the records, indicates her condition and the progress of the disease.

"*Feb. 6th*, 1850. Patient appears to be improving, limbs of same length, right much smaller than the left, disease in the third stage, anchylosis seems progressing, menstruation regular in its periodical recurrence, but discharge scanty. Treatment — rest, counter-irritation by blisters, good diet; internally, iodide of iron."

No considerable change took place in her condition during the twelve months following the above date. But about six months since her general health began to fail, the suppuration of the diseased joint became more profuse, grating of the denuded head of the femur in the cavity of the acetabulum soon became apparent on motion of the limbs, and she at length sunk and died July 2d, having reached the extreme of emaciation.

Autopsy, twenty hours after death.—The parts about the affected hip were in a more or less sloughy condition. The head of the femur deprived of its articular cartilage, but partially occupied its socket, widened and deepened by ulcerations; at the upper part of the cavity of the acetabulum was a foramen three lines in diameter, leading into the iliac fossa, and forming a communication between a considerable collection of pus in this fossa, beneath the iliac fascia, and the cavity of the joint. This collection of matter distended the peritoneum in the iliac region so as to form a tumor apparent on removing the viscera of the abdomen. The bones of the pelvis were of their natural hardness. Cavities were found in the apex of both *lungs*, and the upper lobes of the *right* were thickly studded with tubercles.

Remarks.—These cases illustrate very fairly the difficulty often experienced in diagnosing hip-disease in its early stage. In each, the symptoms all pointed to the knee as the true seat of disease, for more than a year, while the hip-joint gave no other evidence of the morbid process going on within it. This sympathetic pain in the knee is thought, by Sir C. Bell, to depend upon the obturator nerve, which "passes through the thyroid foramen down to the hip-joint, and, after supplying the muscles, is distributed upon the inner part of the knee. The nerve, in its course, is thus involved in the inflammation which affects the hip-joint, and the pain is referred to its extreme cutaneous branches, at a part distant from the seat of the

disease." Coulson, taking advantage of the circumstance that the pain is sometimes felt along the outer part of the thigh, as in the first case above related, while the obturator nerve is distributed only to the muscles in its inner aspect, rejects Bell's explanation and thus substitutes his own: "It has struck me that, from the intimate connection of the long head of the rectus femoris with the outer edge of the acetabulum, and with the capsular ligament, the fascia of this muscle may take on the inflammatory action, and the pain in this way be conveyed down the limb to the thigh." But a better explanation is found in the remote sympathy of Hunter, in which "there appears no visible connection of parts that can account for such effects. In these cases there is commonly a sensation in the sympathizer which appears to be delusive, and produces a wrong reference of the mind to the seat of disease." For this pain has no fixed situation, but is located variously in the thigh, knee, or even in the foot, or it may change almost daily from one part of the limb to another, as in a case now under observation.

In reference to the diagnostic value of this sympathetic pain, Ford observed that it "was always synchronous with the elongated limb; it commenced with it, it continued as long as the diseased limb was longer than the sound one, and ceased when the thigh began to resume its proper length, or to become shorter; and he had never observed it in the latter stages of the disease, when the thigh affected was shorter than the sound one." *(Obs. on Dis. of Hip Joint.)* Chelius is of the same opinion; but, in two cases now under treatment in this hospital, both being in the third or suppurative stage, this pain of the knee is a distressing symptom.

An interesting particular in the history of the second case was, the occurrence of partial anchylosis and its subsequent destruction; cases of a similar character were recorded by Mr. Ford. Perforation of the acetabulum and the formation of purulent collections in the pelvic or abdominal cavities, mark the extreme and fatal termination of this disease. This is, comparatively, a rare termination; anchylosis or an exhausting external suppuration being much the most common. It will be observed, that in these two cases the disease was seated in the *right* hip-joint. Although authors speak of the *left* as being more frequently affected, because "it is feebler than the right," a comparison of sixty-six well authenticated cases gives a

very different result. Of this number, thirty-two were on the right, eight on the left, and one on both sides; in the remaining twenty-five no note was made of this fact; this gives about eighty per cent., or four fifths of the cases as occurring in the right hip-joint.

CASE 4.—*Acute Synovitis of the Knee Joint — Evacuation of the fluid of the joint by incision — Rapid convalescence.* — Pierce Shea, 26 years of age, native of Ireland, was admitted Dec. 10th, 1850. Two years ago, while attempting to hold a restive horse, he was thrown to the ground, striking his right knee against a curb-stone, and fracturing the patella transversely. He was under treatment in the Pennsylvania Hospital for this accident ten weeks, at the end of which time he was discharged, the fragments being united by a ligament half an inch in length. Since that time he has been very liable to falls, it being impossible for him to stand erect unless the limb was kept straight; the fragments of the patella are now two and a half inches separated. Came to the hospital for treatment of an injury to the same leg just below the knee, occasioned by falling upon the floor; wound four inches in length. Simple dressings were applied to the wound, and patient directed to keep his bed. About a fortnight after admission, the following notes of his case were made:

Dec. 25th. Was seized with severe pain in the knee last night; had a chill followed by fever; pulse 96, full and hard. *26th.* Pain in knee increased; obtains no sleep; tenderness in the femoral region, where some of the glands are swollen; pulse 100, hard, and incompressible; treatment actively antiphlogistic. *27th.* Knee considerably swollen and fluctuating. Dr. C. D. Smith in attendance, opened it by making a transverse incision an inch in length two inches above, and on the inner aspect of the joint. A sero-sanguinolent fluid escaped in considerable abundance, containing clots of a fibrinous character — fluid synovial in its nature. *28th.* Continues to suffer severe pain in the knee; sleeps but little; discharge free, and of same character as at first. *31st.* Knee has again become tense and fluctuating; Dr. S. opened the tumor a second time by making two incisions on opposite sides of the joint, about an inch posterior to the lateral borders of the patella, in a vertical direction; probe passed freely through from one incision to the other; a large quantity of serous fluid escaped occasionally, streaked with a white discharge; ordered poultices to be applied to the knee. *Jan. 1st.*

Passed a more comfortable night; has less pain in knee; serous fluid escapes freely from incisions; pulse 112, quick. 2*d.* Much better; slight pain in knee; pulse 100; tongue clean. 6*th.* Pain in knee subsided; discharge continues, but in diminished quantity; general symptoms improving. 9*th.* Discharge slight; joint is of its former size; no pain on motion. 20*th.* Convalescent; left the hospital in an improved condition, and has since followed an active occupation.

CASE 7.—*Erysipelatous Laryngitis.*—Mary Horn, aged 30, native of Ireland, was admitted May 9th to the Lying-in Wards, in her third pregnancy. She was delivered of a still-born infant June 7th, and convalesced from her confinement with no untoward symptoms.

June 14*th.* She complained of pain and soreness in her throat; and, on examination, the tonsils were found slightly enlarged, and the posterior part of the mouth diffusely reddened. A solution of nitrate of silver, grs. xxx. to water ʒ, was ordered as a local application to the inflamed fauces, and rubefacients used externally. During the night she obtained the solution, and, ignorant of its purpose or effect, gargled it several times in her mouth, which was found on the following morning covered with a white surface. This was, however, soon detached, leaving the mucous membrane of its natural color. 16*th.* Increased difficulty in swallowing, dyspnœa, a loud hoarse cough, high fever and swelling beneath the chin. 17*th.* Dyspnœa much increased, unable to lie down from fear of suffocation, aphonia, inspirations croupal, epiglottis feels tumid when examined with the finger. 18*th.* Erysipelas has made its appearance about the throat, and extended down upon the chest; neck much swollen in consequence, dyspnœa diminished, tongue red and swollen.

During the three following days she continued to suffer paroxysms of severe dyspnœa, the tongue swelled largely, the erysipelas faded from her breast, but assumed a phlegmonous character about the face, and she died apparently from the exhaustion consequent upon the long continued deficiency in her respiration.

Autopsy, twelve hours after death.—Papillæ of tongue prominent; epiglottis tumid, its borders red; the mucous membrane on its posterior surface normal; that on its anterior loose and covering some serous fluid contained in the sacs formed by its reflections. The edges of the superior orifice of the larynx were slightly injected and

marked by irregular white patches, which, when picked off, left ragged, ulcerated surfaces beneath. Upon farther dissection, pus was found infiltrating the cellular tissue around the larynx, distending the space between the thyroid and cricoid cartilages, and pressing upon the rima glottidis, so as to obliterate the sacculis laryngis of both sides. The interior of the larynx trachea and œsophagus appeared entirely healthy.

Another case similar to the one above related, but having a more favorable termination, occurred soon after. The subject was a male, aged 35, who was admitted with tonsilitis. His voice was at this time husky; he had fever, dyspnœa, dysphagia, and the swelling about the jaws was such as to prevent an examination of the fauces. Leeches were applied to the throat, and a calomel cathartic administered. On the following day, erysipelas made its appearance about the lips and nose, and quickly spread over the entire face and head; the lips and face generally swelled greatly, but the affection of the throat gradually declined. Nitrate of silver, full strength, was applied to the inflamed skin, and other remedies made use of to suit the case; he convalesced in a few days.—*New York Jour. of Med.*

ART. VII.—*Gastrotomy successfully performed for Extra-Uterine Pregnancy.* By Drs. BRADLEY and ROGERS.

The patient was a negro woman, aged 28 years, the mother of seven children. In June, 1849, six weeks after conception, she began to complain of colic, attended with constipation. On the 10th of February, 1850, she supposed herself in labor. On examination, the os uteri was natural and the breasts were flabby. There had been no movement of the child felt since the middle of November, at which time there was milk in the breasts. A tumor filling the whole right lumbar region, extending above the hypochondriac, and below to the iliac region, and somewhat to the left of the umbilicus. There was also present considerable febrile disturbance. She was certain that she had felt the motions of the child, from the fourth or fifth to the seventh or eighth month, when she supposed it died. The diagnosis being extra-uterine pregnancy, the removal of the child was recommended.

On the 7th of February, 1851, the patient having been previously prepared, chloroform was administered. An incision was made extending for two inches above the umbilicus to the pubes. The fœtus

was found in the right fallopian tube, fully formed and about the size of a seventh-month child. But little decomposition had taken place. It was firmly attached to the peritoneum, anteriorly and posteriorly, and latterly to the uterus. In separating the attachment, the epidermis of the child was removed at the adherent portions. After removal, the parts were carefully cleansed, and four sutures, with sufficient adhesive plaster, were used, and an opiate was ordered. Her recovery was rapid, so much so that, four weeks after the operation, it was complete.—*N. O. Med. & Surg. Jour.*

ART. VIII.—*Surgical Treatment of Vesico-Vaginal Fistula.* By GEORGE HAYWARD, M.D.

From a paper on vesico-vaginal fistula, in the Boston Medical and Surgical Journal, we learn that Dr. Hayward has operated twenty times on nine patients. In three cases the operation was entirely successful; in five the patients obtained great relief, so that the urine could be retained for a number of hours without any escape through the fistulous opening; and in the remaining two, no benefit was derived. His mode of treatment was as follows:

"The patient being thoroughly etherized, the bladder can be brought down by introducing a large-sized bougie (one made of whalebone, highly polished, is to be preferred) into the urethra, to the very fundus of the bladder, and carrying the other end up to the pubis. In this way the fistula is readily brought in sight. Its edges can be pared with the scissors or a knife, though usually both these instruments are required; and this part of the operation is much facilitated by holding the edges by means of a double hook. In all the cases that I have examined, these edges are thick, hard, and usually of a white color. It is not difficult, therefore, to dissect up the outer covering from the mucous coat of the bladder to the distance of two or three lines. The needles are then to be passed through the outer covering only, and as many stitches must be introduced as may be found necessary to bring the edges of the fistula in close contact.

Since my first operation, I have used a short needle with the eye near the point, made to fit on to a long handle. The instrument, when the two parts are together, looks not much unlike a tenaculum, though not so much curved, and considerably broader near the point.

As soon as the needle is passed through one side of the fistula, it is immediately seized with the forceps, the handle is withdrawn, and

marked by irregular white patches, which, when picked off, left ragged, ulcerated surfaces beneath. Upon farther dissection, pus was found infiltrating the cellular tissue around the larynx, distending the space between the thyroid and cricoid cartilages, and pressing upon the rima glottidis, so as to obliterate the sacculis laryngis of both sides. The interior of the larynx trachea and œsophagus appeared entirely healthy.

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Since my first operation, I have used a short needle with the eye near the point, made to fit on to a long handle. The instrument, when the two parts are together, looks not much unlike a tenaculum, though not so much curved, and considerably broader near the point.

As soon as the needle is passed through one side of the fistula, it is immediately seized with the forceps, the handle is withdrawn, and

the needle is then carried through. It is to be then again fitted to the handle, and carried through to the other side in the same way. As many stitches as may be thought necessary to bring the parts into close contact, can in this way be taken with great ease. One thread of each stitch is to be cut off; it is convenient to leave the other, as it enables the operator and patient to know when the ligatures have separated from the bladder.

A large-sized female catheter is then introduced into the bladder, and secured there by means of a T bandage. The patient should be laid on her side, with the upper part of the body somewhat raised, so as to facilitate the flow of water through the catheter. This should be removed at least once in every twenty-four hours, as it is very likely to be obstructed by mucus, coagula of blood, and occasionally calculous concretions. In three days I think it safe to remove it altogether, but then it should be introduced at least once every three hours, for ten or twelve days more, so as to prevent any accumulation of urine in the bladder, and consequent strain on that organ.

The diet should consist entirely of liquid, mucilaginous food; such as an infusion of slippery elm, gum arabic and water, flax-seed tea, arrow-root, and milk and water. This diet, in my opinion, should be continued till the ligatures come away.

The bowels should be opened by some mild laxative a few hours before the operation; but it is desirable that they should not be moved again till some days after.

It may be proper to add, that I have never had any troublesome hæmorrhage from the operation, nor any alarming symptoms after it. In some cases the pain has been severe for two or three days, and once or twice it has run down the limb, apparently in the course of the sciatic nerve. When performed in the way that I have recommended, I believe it to be attended with very little if any danger, as the bladder is not subjected to any considerable degree of violence, nor any part injured to a great extent."

PART THIRD.

FOREIGN INTELLIGENCE.

OBSTETRICS.

ART. I. — *Case of Abortion in which Transfusion was required and successfully resorted to.* By G. MASFEN, Esq., House Surgeon to the Staffordshire Infirmary.

On the 30th of July, 1848, at 1 P. M., I was called in to attend Mrs. B——, a lady of particularly delicate appearance, in her thirty-eighth year. It appears that on the evening of the 29th she had perceived some slight sanguineous discharge from the vagina, and had consulted my father, to whom she described herself as being four months advanced in her tenth pregnancy, but thought that the child had not grown for the last month or two. He ordered a mixture containing diluted sulphuric acid with Battley's sedative; but the discharge continued to increase until about seven o'clock this morning, when it became quite alarming. Plugging and injections of oak bark were tried, but with no effect, and a dose of ergot was administered, which produced a severe pain, and the expulsion of a two-months' fœtus; but the hæmorrhage continued to increase till 1 P. M., when I first saw her.

I found her excessively weak from loss of blood; not the slightest pulse was to be felt at the wrist; and she became at last insensible. The stomach rejected every thing, and though the hæmorrhage had in a great measure stopped, there was every symptom of sinking and speedy dissolution.

About three o'clock, it being the opinion of every one present that it was the only possible means of saving her life, the operation of transfusion was decided upon, which I performed in the presence of Dr. Knight and my father. I immersed a four-ounce brass syringe in water at the temperature of 110 deg. Fahr., and drew a full stream of blood into it from the arm of a stout buxom-looking servant maid. This I injected into a vein on the left arm, taking every precaution to prevent the admission of any air-bubbles. As the operation was

going on, consciousness appeared to be somewhat roused, and the pulse became slightly perceptible at the other arm, but in the course of half an hour the pulse had again disappeared, and she remained still unconscious. I then a second time injected three ounces of blood into the right arm (the veins were so small and empty that there was difficulty in finding the same opening twice); this was again attended with a return of pulse and sensibility, which, however, gradually disappeared as before. After an interval of nearly an hour, I injected a third three ounces of blood, which produced more permanent good effects; the pulse gradually rose as the injection went on, color made its appearance in her face, and she inquired if we had been bleeding her. During the evening she complained much of thirst, and she had occasionally a teaspoonful of wine and water.—8 P. M. The pulse was slightly perceptible, but was not to be counted; she attempted to take a cup of tea, but it was immediately rejected, as was also a teaspoonful of water, and she remained all night awake and thirsty, but afraid to drink even a little water.

31st, 6 A. M. The pulse was 150, and very much increased in strength; the tongue dark brown, hard, and dry. Ordered three drops of creosote in the form of a pill. She vomited almost immediately after taking it, but did not throw up the pill, which from that time appeared to allay the sickness. She then took a tablespoonful of brandy mixture every hour. In the evening she still complained of thirst, and was ordered the following mixture:—Sesquicarbonate of soda, two and a half drachms; sesquicarbonate of ammonia, half a drachm; compound tincture of cardamoms, two drachms; oil of lemon, six drops; distilled water, six ounces. Two tablespoonsful to be taken every three or four hours in a state of effervescence, with twelve grains of citric acid. There was a great extravasation of blood for six or eight inches above and below the elbow in both arms, probably the effect of the injection. Ordered warm water-dressing.

August 1st and 2d. She continued gradually improving in appearance; her pulse was slower, and she was better able to take slight nourishment. The arms were becoming more ecchymosed, and she complained of great pain in them. The warm water-dressing was continued.

3d. Her health is gradually improving, and she is taking no medicine; complains of great pain in the right arm, which was much

inflamed, and very hard just below the elbow, and seemed likely to suppurate. Ordered castor oil and the water-dressing.

4th. The arms rather better; the swelling abated.

5th. Continues to improve, both in health and as regards her arms. Ordered tincture of sesquicloride of iron, one drachm; infusion of quassia and camphor mixture, of each three ounces; to take two tablespoonsful three times a day.

14th. The arms have been gradually improving, and the discoloration is nearly gone, but they remain very weak, and she is not able to write.

28th. She has now quite recovered the use of her arms, and is in general good health. From this time I discontinued attendance.

In June, 1849, she miscarried again, but otherwise she has remained perfectly well up to the present time.—*Lancet.*

ART. II.—*On the Treatment of Obstruction of the Bowels.* By EDWARD WELLS, M. D., Oxon.

[In some preliminary remarks, the author informs us that it is not his object to treat of intestinal obstructions from causes external to the tube, as tumours, &c., nor of obstructions arising from internal causes, as hardened fæces, neither of those cases which originate in hernia. The cases which he has in view are those which have no demonstrable cause of the obstruction, such as in the following supposed case.]

You are called to a patient, who informs you that he has had no proper relief from the bowels for the last seven or eight days; that he has been to the druggist, and taken black dose upon black dose, pill upon pill, and that they are all in him, and he wants to know what he is to do next. He tells you further that it is true he has been to stool once or twice, or perhaps even oftener during the time, that he has on each occasion passed something, but he is sure it is not what he ought to have passed. In short, to use his own expression, although he has occasionally had a scanty evacuation, he is convinced that "*nothing has gone through him.*" Upon examining the abdomen, you find some distension around the umbilicus, with a degree of tenderness on pressure. This last symptom varies from that slight shade on which the patient can hardly say whether the pressure relieves his pain or not, up to decided tenderness on the least touch. In mild cases the patient will tell you he feels very well, excepting the obstruction, but the knowledge of its existence

makes him very uncomfortable. In other cases there is some degree of sickness conjoined, merely perhaps occasioned by the purgative draughts. In severer cases the sickness is more permanent, mucus or bile being rejected from the stomach. In such instances we should expect the tenderness on pressure over the bowels to be greater, though still not in any degree approaching to what usually occurs in peritonitis. All this time the pulse is not perhaps accelerated, it is generally weak; the tongue is moist and often clean; the urine, provided the obstruction be not situated high up in the bowels, is not necessarily affected, though generally high colored.

Under these circumstances, and especially in the milder cases, the first thing perhaps that you do is to order a large enema to be thrown up. It is found to traverse the large intestine easily; the patient assures you that he feels it go as far as the ileo-cœcal valve, and after a short time it returns without any tinge of fæcal matter. The obstruction is not in any part of the colon, but somewhere in the small intestine.

What treatment should then be adopted? In the severer cases, where there is pain upon pressure, distension of a portion of the intestine, a rumbling of flatus, and frequent vomiting, it will be said that the line of treatment is easily chalked out; that, whatever the cause of the obstruction, we have inflammation superadded; and that our treatment must be directed to subdue the latter. This is quite true: and in such well-marked cases, I do not think there would be much chance of the case being misunderstood. But we must remember that these severe instances of the disease are only the consequence of a continuation and aggravation of the symptoms of its milder forms. We must not forget that the most simple case of obstruction is liable to run on into a fatal form, if, with a view of obtaining an action of the bowels, we are incautious in the prolonged use of irritating medicines. Finding that the patient's chief discomfort arises from the fact of the bowels not acting, that he professes himself as feeling otherwise well, we are, perhaps, rather too liable to fall in with his own fancies, and just give him one more dose.

Now, in these cases what ought we to do? In the first place, abstain entirely from all purgative medicine. It will be much better to err in not giving sufficient aperients, than to err in giving too much. The first thing to do is to compose the patient's mind by informing him that there is no hurry for the bowels to act; that if he waits patiently, they will be sure to act in time; to tell him in-

stances of persons who have gone a long time without any action of the bowels, and have done well.

Next, in these cases of obstinate obstruction, I have great faith in the lancet, where it can with safety be used. It has seemed that a slight degree of faintness produced by bloodletting, has acted very beneficially in removing the exciting causes of the obstruction, probably by the general relaxation which the faintness itself occasions. By putting the patient in an upright position, and bleeding him until he begins to feel slightly faint, I think we are quite safe not to do him any harm. If he is of a weak nervous temperament, a very few ounces will produce the desired effect. If he be strong, he will afford to lose more. Where, however, the debility of the patient forbids the use of the lancet, it will be as well to apply leeches around the umbilicus. These act, probably, by relieving the local congestion, which is either the cause or the effect of the obstruction.

These measures premised, the safest plan is, I think, to put the patient upon repeated doses of calomel and opium. Even if inflammation be totally absent, the exhibition of these two drugs is likely to be attended with the best effects. The opium soothes the bowels already irritated by the repeated cathartics: it allays the over-excited peristaltic action; it relaxes any contingent spasm, and quiets the patient's mind. To effect these objects, it must be administered in sufficient doses—such as gr. ½ to gr. j. every four hours. The calomel, by improving the secretions, and exciting the action of the liver, tends to remove the cause of the obstruction. And if this happen to depend upon a partial enteritis, the combined action of these two medicines would hold out the best hopes of a successful treatment. If the calomel be sufficiently guarded by opium, there is not, I think, any fear of its producing any serious irritation of the bowels.

While using these remedies, I should be in no hurry to accelerate the action of the bowels by aperients. I should rather wait until they begin to act of themselves, as they generally will; and then, provided no inflammatory symptoms were present, there would be no objection to administer a dose of castor-oil to aid their propulsive efforts. In these cases it is also better to delay the administration of aperient enemata until the bowels are acting of themselves. Previously to this they appear to add rather to the patient's discomfort, probably by the distension they occasion in the large intestine, which reacts upon the parts already distended by the obstruction.

When there is no tendency to sickness, it is better to allow the

patient to take food, in the shape of gruel, by the mouth. It prevents that sense of sinking which he often experiences, and it probably acts in some degree mechanically in propelling the contents of the intestinal tube.

In those severer cases, where there is frequent sickness, with pain in the bowels, and a rumbling of flatus, the above measures will be still further indicated. But there will also be other things which it will then be necessary to attend to. In these cases it is of great importance to abstain from giving any food by the mouth for some days. A teaspoonful of cold water should be put into the mouth from time to time to allay the patient's thirst. His support should be entirely entrusted to beef-tea injections. It is proved that these are sufficient to maintain the strength for some time—at any rate, for a period sufficient to allay the irritating symptoms, which forbid the exhibition of food by the mouth. This part of the treatment I am inclined to consider as of the highest importance; for as long as food is continued to be administered by the mouth, and is rejected by vomiting, there will be little chance of arresting the inversion of the peristaltic action of the intestinal tube. The nutritive enemata should be of small bulk, not exceeding at the outside a quarter of a pint; otherwise they will not only be retained, but they will add to the patient's sufferings. They should be administered at regular intervals of four hours. When there is much rumbling of the intestines, or when there is a difficulty as to the retention of the injections, it is advisable to add to them a certain proportion of laudanum.—*Medical Gazette, Ranking's Abstract.*

ART. III.—*Case of Volvulus cured by Gastrotomy.* By Dr. REALI.

(Revue Medico-Chirurgicale. Janvier, 1851.)

Volvulus, whether consisting of internal strangulation, or intussusceptio of the intestines, is generally looked upon as beyond the aid of art. The great obstacle to operative proceedings for its relief, is the uncertainty as to the exact site of the obstruction; but when this is clearly ascertained, that gastrotomy is a justifiable procedure, is shown by the result of the following case:—

A peasant aged 30, of athletic form and vigorous constitution, the subject of inguinal hernia, undertook severe labor after eating a quantity of cherries, swallowing the stones. After working some time, he was seized with pain in the hypogastrium, soon followed

by vomiting. Dr. Reali, on examining the abdomen, found the hernia perfectly free; but a short distance from the right iliac fossa, there was seen a shining tumour the size of a pullet's egg. For four days there was no action of the bowels, the vomiting became stercoraceous, and the patient's death appeared inevitable; gastrotomy was resolved upon as a last resort.

The patient being etherised, an incision of four inches was made, commencing at an inch below the umbilicus, and extending nearly to the pubes. The parietes of the abdomen being divided, and the peritoneum opened, the epiploon was raised, and the intestines being pushed aside, the operator introduced his hand towards the tumor, which was found to consist of a fold of ileum twisted upon itself, so as to form a ring which could not be liberated. Under these circumstances the surgeon made three incisions into the projecting intestine; the incisions were united by suture, and the operation was completed by closing the abdominal wound.

The patient took ice freely, and cold applications were used. The day after the operation the abdominal pains ceased, as also the vomiting and hiccup, and on the second day there was free alvine relief. Subsequently symptoms of enteritis ensued, with an erysipelatous blush around the external wound. On the fourth day the sutures were removed, the edges of the wound being gangrenous. On the twentieth day the fætid suppuration was much abated, and the wound assumed a healthy aspect, but complete cicatrization did not occur till after four months.

This case undoubtedly exhibits the propriety of opening the abdomen in cases of constipation, when the situation can be clearlyor even approximately made out. The incisions into the intestines were in our opinion, unadvisable; and to them, with the partial fæcal extravasations which probably ensued, may be attributed many of the untoward symptoms which delayed the patient's recovery,

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ART. IV.—*Case of Birth, after the death of the Mother.*

Dr. Schneider relates that being summoned in haste to a woman in labor, he found her dead on his arrival. On placing the hand on the yet warm abdomen, he felt the uterus contracted and sunk in the pelvis. By an examination per vaginam, a foot was detected, and, by rapidly completing the delivery, he had the satisfaction of bringing into the world an apparently still-born child, which, however soon revived.—*Casper's Wochenschrift;* and *British Medical and Physical Journal.*

ART. V. — *Treatment of Delirium and Coma.** By DR. R. B. TODD, F. R. S.

In this latter diagnosis, it is plain that we derive great aid from the clinical fact to which I have already alluded: namely, that the vast majority of cases of delirium and coma are clearly not dependent upon any inflammatory process in the brain — upon any process which leads to the formation of lymph or pus, or to the ultimate disorganization or total destruction of the tissues affected. And we derive further help, in the diagnosis, from the fact (which, I think, cannot be doubted,) that inflammation of the brain, (whether of the membranes or of the cerebral pulp,) is a rare disease, excepting in quite young children. It is seldom met with, both in hospital and in private practice, excepting at those early periods of life when it is associated with a strumous state of constitution. Hence, there being the strongest reasons for concluding that inflammation of the brain is a rare disease, we are justified in holding the opinion that delirium and coma, in the vast majority of instances, are non-inflammatory affections, but that occasionally they depend upon, or are associated with, inflammation of the brain. What, now, are the symptoms which, in any given case, would lead us to affirm that the patient is suffering from inflammation of the brain? I shall enumerate these symptoms in the order of their frequency and importance.

The first symptom which I shall mention, because it is of very frequent occurrence, and ought to excite very strong apprehensions in the mind of the medical attendant, is *nausea* and *vomiting*. It comes without any assignable cause; sometimes the patient vomits without any previous warning, and quite irrespective of any food he may have taken into his stomach, or of any previous derangement of his digestive organs, or indeed, of any previous marked disturbance of the general health.

Secondly, we meet with pain in the head as a very frequent symptom, which, however, exhibits a good deal of variety in its characters. Sometimes it is acute, and fixed in its situation; at other times dull and indefinite. It is more intense and better marked in propor-

* We have abridged this article to a reasonable length, after considerable labor.—[*Ed.*]

tion as the disease is seated nearer the surface. It is most intense in inflammation of the dura mater, less so in inflammation of the pia mater, and least severe in inflammation of the cerebral pulp. When the inflammation arises from a syphilitic taint, the dura mater is very frequently affected; and in such cases the pain in the head is not uncommonly accompanied by a tenderness of the pericranium in the position of the pain.

Thirdly, sluggishness of the pulse is a frequent accompaniment of even the most intense inflammation of the brain. The pulse may fall as low as 50, or even 40, or it may continue to beat at the rate of 60 or 70. It may be sluggish without being particularly slow. The artery strikes in a heavy sluggish manner, not rapidly or sharply, but conveying the sensation as if it impressed a larger surface of the finger than usual. Generally, however, in cases of inflammation of the brain the pulse is both slow and sluggish, and the heart's action heavy, the beats not succeeding each other rapidly.

Fourthly, we have delirium tending to coma. In inflammation of the brain the delirium is generally of the low and muttering kind. You seldom or never have wild frantic delirium when there is inflammation of the brain. The descriptions given by systematic authors of what is called *phrenitis*, appear to me to have no foundation in clinical study — at least, if that affection be regarded as a form of inflammation within the cranium. In inflammation of the brain there is along with the delirium a more or less comatose state, which gives to this form of delirium a close resemblance to that which comes on in typhus fever. Indeed, some cases of inflammation of the brain so much resemble typhus fever, that it is exceedingly difficult, or quite impossible to distinguish between them, until the disease is so far advanced as to afford some special characteristic symptoms.

Fifthly, I may notice *coma*, which generally accompanies or follows delirium, and which is a more constant symptom of inflammation of the brain than delirium. Delirium of the low muttering kind, passing readily into coma, without any evidence of diseased kidney, or of impediment to the excretion of any other gland, affords strong presumptive evidence of the existence of inflammation of the brain.

The last symptom to which I shall refer as accompanying inflammation of the brain is *paralysis*, which occurs under a great variety of circumstances as regards degree and locality. Occurring in connection with the other symptoms I have detailed, it is a sure indica-

tion of the presence of destructive disease within the cranium. It is obvious, however, that it must vary considerably in extent, according to the extent and position of the inflammation.—You may have a slight paralysis affecting the levator palpebræ and some of the muscles of the eye-ball; or a hemiplegia, perfect, or otherwise, but frequently exhibiting a more or less contracted state of the muscles of the paralytic limbs.

The paralysed limbs are sometimes affected at intervals with epileptiform convulsions, more especially when the inflammatory process is seated on, or very near, the surface of the brain. In rare instances, in young subjects, such partial convulsive movements may pass into general convulsions; otherwise, I apprehend that general convulsions cannot be regarded as a feature of the clinical history of inflammation of the brain.

Thus, then, that form of delirium which is accompanied with nausea or vomiting, pain in the head, or a slow sluggish pulse, and has an obvious tendency to the comatose state, or passes quickly into coma, and especially when accompanied or succeeded by paralysis, may be justly viewed as having its origin ininflammation within the cranium, more especially when there is no evidence of disease of the kidney.

Excluding the delirium which originates in inflammation of the brain, the diagnosis of the other forms of delirium from each other is comparatively simple, certain salient points in the history of each affording generally obvious indications of the nature of the delirium.

[Dr. Todd considers the treatment of *delirium tremens* first, not only because we see it most frequently in hospital practice, but because the treatment best suited to it is also in a great degree applicable to other forms of delirium.—He says:]

By delirium tremens I mean that state which comes on sooner or later in all persons addicted to habits of intemperance. Many practical men recognize two kinds of delirium tremens; but it would, as it seems to me, be more correct to consider these as two distinct forms of delirium, closely allied, however, inasmuch as they both may arise from intemperance. The first is the true delirium tremens of drunkards,—*delirium ebriosorum;* the second is delirium from alcohol,—*delirium e potu*, which may occur in a man who is habitually the most temperate. As I go on you will see the importance of this dis-

tinction. The one occurs in a habitual drunkard,—the other may occur in a person drinking for the first time. One is frequently the precursor of the other if a temperate man be led to drink excessively, the second form soon comes on, arising from the poison of alcohol interfering with the healthy action of the brain; but if he become a habitual drunkard, he is subject to attacks of the true delirium tremens, under particular circumstances. In this case, however, the poison is not alcohol, but a compound formed of alcohol and, perhaps, some morbid matter generated in the system, The true delirium tremens is the delirium of a man who, having long indulged in his cups, has by some means or other been depressed, or prevented from taking his accustomed amount of stimuli. The delirium e potu is the delirium of a man whose blood has become charged with alcohol; it is a case of active poisoning, the poison being alcohol, but we know this cannot be the case in the delirium of drunkards, because the exhibition of alcohol in some form or other is known by experience to constitute a most important part of the treatment of the disease; as if alcohol, within certain limits, were an antidote to poison which disturbs the nutrition of the brain.

If these distinctions be correct, it is obviously of vast importance to recognize clearly the two maladies, as an essentially different treatment would be required. In the one case you have to deal with delirium, supervening upon a disease in which the powers of life have been greatly impaired by a course of slow poisoning: in the other you have to oppose by your treatment the mischief done by the introduction of alcohol; and to eliminate this poison from the system.

You have very much the same difference in case of opium-poisoning as in that of poisoning by alcohol. Habitual opium-eaters are liable to a form of delirium which closely resembles the true delirium tremens, and which, like it, is apt to come on when they are deprived of their accustomed supply of opium. But the rapid administration of opium in large quantity will excite a state of delirium which very speedily passes in to profound coma. In the one case, the administration of a certain quantity of opium, or of some other sedative, is esential to the cure; in the other case, the introduction of any more opium into the system would inevitably destroy the patient, or greatly increase his peril.

It is important to observe that these two kinds of delirium may be mixed: they may occur in the same patient at the same time. A

man habitually intemperate, whose blood is already poisoned by the peculiar poison of delirium tremens, and who has had the horrors, and many other of the symptoms of delirium tremens, sits down to a bout of drinking, and alcohol enters his blood in large quantity. Thus he becomes at once the subject of two states over which, however, the delirium e potu would evidently predominate. In such cases the treatment evidently becomes much complicated, and it would obviously be desirable to eliminate the free alcohol from the system before you can deal with the delirium tremens.

I shall now proceed to the consideration of the treatment of the true delirium tremens, which we meet very commonly in hospital practice, both in a mild and in a more intense form.

I. The milder form of the disease is characterised by the occurrence of horrors, hallucinations, tremor, vigilia. In such cases the patient fancies he sees demons, or dragons, or insects creeping over his bed, or flying in the air; he is suspicious, and thinks every body is combining against him to do him some injury; or he dreads some impending evil, and fancies himself about to die, or to fall into misfortune. With some or all of these symptoms there is more or less of tremor accompanying the voluntary motions. If you ask the patient to hold out his hand, he does so with a remarkable and characteristic tremor: this tremor interferes greatly with the due performance of many acts which require a nice muscular adjustment: he cannot hold and direct his pen properly: he is a long time about buttoning his coat or his breeches, or tying his cravat; to pick up a pin, or neatly insert it into any part of his garments, is quite beyond his power. So also if you make him shut his eyes strongly, or protrude his tongue, you witness the same characteristic tremulousness in those actions. He finds it difficult to obtain sleep, and if he does sleep it is only for short periods, frequently being waked up in a fright by horrible dreams, or with nightmare. With all these symptoms of disturbance of the nervous centres, the patient's skin is moist, often perspiring freely, his tongue is clean, and his pulse soft, and not quick.

In every case of this kind it is important to remember that the balance of nutrition, so to speak, is disturbed by some cause,—either by the want of proper food, from loss of appetite or from the inability to procure it, as we often find with our poor hospital patients; or by the impairment of the functions of the stomach, through the repeated use of stimulants, so that the patient is unable to retain or digest nutri-

tious food. The great object of treatment, therefore, is, to restore the balance of nutrition and to procure sleep, in which, if you succeed, you cure your patient in a very few days. It generally happens in these mild cases that the discipline, the regular hours, and the care to which the patients are subjected in a hospital, restore them to health with very little medical interference.

[Dr. Todd illustrates the preceding observations by the particulars of the following case:

Henry Arden, aged 29, was admitted on the 2nd of July. His health had been good until nine months previously, when he suffered from some indisposition. He had acquired the habit of drinking porter daily, even to the amount of from four to five pints, from which he supposed he derived benefit.

Two months before his admission he began to suffer from dyspeptic symptoms, with loss of appetite. He left off taking his porter, and in his own words, "felt something rise from his chest to his head," accompanied by various hallucinations, (fancying himself to be walking about the house, opening the windows, &c.,) and these continuing, he was admitted on the 2nd of July. On the admission, he exhibited all the characteristic signs of delirium tremens, tremors in all his movements, pallid countenance, sleeplessness, with the above hallucinations.

He was put simply upon a regulated diet, allowed a pint of porter daily, and a moderate quantity of meat, and ordered half a grain of morphia every night. On this night, he slept for the first time for four nights. On the fifth, the tremulousness was less, and all hallucination had disappeared; and on the 12th, with the exception of some tremulousness remaining, he was quite well.

[Dr. Todd then proceeds to consider the treatment of the more intense or confirmed delirium tremens.]

In deciding upon the appropriate treatment of such cases as these, we must look, in the first instance, to the immediate cause which has disturbed the balance of nutrition. We shall find this to be either that he has been deprived of food by dire want, or that his stomach has become so irritable that it rejects everything that he takes. I say it is important to determine the cause of this disturbed nutrition; because our first endeavor must be to induce our patient to take nourishing food. This will be easily enough effected if the patient had been deprived of food from necessity, or if his appetite had been impaired;—and it is best to administer the food in small quantities

at a time, but frequently repeated. An ounce, or an ounce and a half, of mutton-chop may be given every two or three hours: or small quantities of some good animal broth or soup. The most difficult case to deal with, is where the stomach has become extremely irritable and rejects the food. Under such circumstances, the greatest nicety is required in the administration of nutriment. If the stomach will not bear solid food or animal broths, milk may be given, the caseine of which may serve for solid food; but it must be given in small quantities at a time, and it may be combined with lime-water, or sometimes even with very small quantities of some alcoholic stimulant—brandy, rum, and gin, it being generally better to select that stimulant which the patient has been accustomed to drink. The patient may be able to retain nourishment of this kind if given in tablespoonfuls, or even teaspoonfuls, at a time, while, if larger quantities were administered, vomiting would ensue.

At the same time, we may with advantage attempt to allay the irritability of the stomach, by other means likewise—as by giving ammonia in effervescence, or the common effervescing draught of soda or potash, or by prussic acid given with or without effervescing medicines; or we may have recourse to a very useful and effective remedy—kreosote combined with morphia, in small doses in the form of pills. Iced water, or small quantities of the pure Wenham Lake ice, will allay the irritable stomach when other means fail. Counter-irritation over the region of the stomach may be also employed with benefit—as mustard poultices, or flannels wrung out of hot water and sprinkled with turpentine.

The mucous membrane of the stomach is no doubt in these cases sometimes in a state of actual inflammation, or nearly approaching to it, although less frequently so than many suppose; and it may be desirable to apply leeches to the epigastrium; but as a general rule, it behooves us to be cautious about taking blood in these cases. I need scarcely add, that in all cases where the stomach is highly irritable it is very important to have the bowels freely evacuated, either by purgative or by enema. Let us now suppose that your patient, not having slept for many hours, is in a state of delirium so violent that he cannot be kept in bed, and is with difficulty kept from injuring himself or others: how are we to act in such a case? There are three points to which your attention must be especially directed:—1. The due administration of nourishment. 2. The means

of restraint. 3. How to procure sleep. I have already sufficiently considered the first point, and shall only add, that whatever the nature of the delirium, this point is primary and paramount.

¶. Dr. Todd condemns all mechanical restraint upon the patient in delirium tremens, especially the strait waistcoat. He prefers careful watching, except where some danger is apprehended, from the violence of the patient.

Dr. Todd prefers opium or laudanum as a narcotic, to morphia and its preparations,—tells us to give it boldly and without timidity—a decisive dose at once, two or three grains of the extract or 60 minims of the tincture, being preferable to small and oft-repeated doses, which rather serve to excite the patient than determine repose.

He combines camphor with opium in some cases, because the former promotes the sedative influence of the latter.

Dr. Todd prefers, over all other medicines, a combination of opium and quinine in delirium tremens, especially when accompanied with great depression and prostration. To quiet delirious patients, Dr. Todd recommends cold applications to the head—the cold douche, or the use of pounded ice to the head; but he recommends caution in the use of cold applications to the head, as they may produce such depression of the heart's action as may kill the patient.

As an illustration of this fact, we may mention the case of a young man who, in a fit of delirium tremens, was injudiciously subjected to a powerful shower-bath, whilst the whole system was overheated and the brain very much excited, and he expired on the spot,—the shock paralysed the heart and it ceased to act. This occurred in New-Orleans, in the fall of 1850. And we now allude to this painful incident as a warning to those who may think no harm can occur to a patient in this condition from the sudden and powerful application of cold water to the entire system.

Dr. Todd regards a very contracted state of the pupils after the free use of opiates in delirium tremens, as contra-indicating the further employment of this class of medicines. In these cases he advises the inhalation of chloroform and mentions three or four cases in which it produced the happiest effect. In the administration of chloroform, he advises us to keep the patient always in the horizontal position—that the heart should ever be examined in all cases previous to the inhalation of the fluid.—He condemns the use of chloroform soon after taking food, because it is apt to excite vomiting.

The obstinate refusal of patients, affected with delirium tremens, to take food, is regarded by Dr. T. as a very bad sign—worse than morbid vigilance, because, if they persist in this, the restoration of the balance of nutrition, always so necessary in such cases, cannot take place. In such cases he recommends enemas of nutritious soups, and even recourse to the œsophagus tube, when the first plan fails. On bloodletting and cupping in delirium tremens, we will let the author speak for himself, in the following words:

"An important question, as regards the general treatment of delirium tremens, is as to the propriety of bleeding. Is it necessary or desirable to bleed, either generally or locally, in such cases? Upon this point practical men are pretty well agreed, that bleeding is a bad and highly dangerous practice; and both reason and experience combine in support of this opinion. For in this delirium there is a marked tendency to the deterioration of the blood by increase of its water and a diminution of its coloring matter; and we know that under a bleeding system this tendency becomes augmented, and so the disturbed nutrition of the brain increased and perpetuated. Moreover, there is nothing in the pathology of the disease which would warrant us in bloodletting; for we have ascertained on the most incontestible evidence that there is no inflammation or congestion to combat by such means. Again, experience shows that bleeding is followed by unsatisfactory results. If you bleed in violent delirium you generally add fuel to the fire, and you increase the violence of the delirium; unless, indeed, you take away so much blood as to produce extreme prostration which destroys the force of the patient, and from which he is not likely to rally.

In fine, in the treatment of the ordinary cases of delirium tremens, which you will meet with in practice, I cannot too strongly impress it upon you, that the most important point is to uphold the strength of the patient, in which, unless you can succeed, all other remedies will be useless. In confirmation of this, I may here mention, that Dr. Gerhard, of Philadelphia, as I learn from Dr. Wood's excellent book on the practice of physic, pursues with great success a purely stimulating plan of treatment in delirium tremens, to which alone he trusts; he gives in all cases, an ounce or two ounces of brandy, every two, three, or four hours, according to circumstances; and by following this plan he has reduced the mortality from this disease in the large hospital at Philadelphia, from one in eight, to one in thirty-

nine. This is a very important statistical fact in reference to the treatment of delirium tremens, and affords valuable support to the advice I have given you. I am not, however, prepared to trust to this treatment alone, nor to give up the use of opium and of other remedies."

¶. Dr. Todd makes some difference between *delirium e potu*, and del. tremens—the first is caused by direct and speedy poisoning with alcohol, as indicated by the loud talking, singing or hallooing of the patient,—in these cases, emetics, purgatives, and sudorifics will generally suffice to restore the patient,—sometimes nauseating doses of tartar emetic will answer a good purpose—by reducing the excitement of the heart and arteries, and thus aid by a free diaphoresis, the elimination of the poison.—Mechanical restraint may be resorted to in these cases—and cold lotions applied to the head, although the former must be abstained from in delirium tremens.

The following remarks on *rheumatic* and *gouty delirium*, are so interesting and practical that we shall copy a large portion of them:

Rheumatic delirium generally comes on suddenly in the course of rheumatic fever, and is frequently *coincident* with pericarditis and endocarditis. I say it is *coincident* with the cardiac affection, and not necessarily related to it, as effect to cause; because the amount of severity of the delirium bears no proportion to the intensity of the inflammation; for we may have slight peri-or endocarditis with severe delirium, or we may have slight delirium with extensive inflammation of the heart; and we know well that the cardiac inflammation often exists without the delirium. The severity of the delirium is, however, in proportion to the debility of the patient. When you have a very watery state of the blood, or where the blood is deficient in coloring matter, and when, also, perhaps, the blood is much charged with the rheumatic poison, you have a condition highly favorable to the production of delirium.

The rheumatic delirium undoubtedly occurs more frequently in those cases of rheumatic fever which have been treated by bleeding; and probably because bleeding makes the blood watery, and diminishes its red particles. When I was in the habit of bleeding in every case of rheumatic fever, as I used to do some years ago, a much larger portion of my patients were attacked with delirium than now, when I never bleed in this disease; indeed, now I find it difficult to meet with a case of this form of delirium to show you.

Now let us suppose that you are asked to see a patient who had been laboring under rheumatic fever, and who has suddenly become delirious, with or without difficulty of breathing. From what you now know of the clinical history of the disease, you would at once examine the state of the heart, whether there were any symptoms referable to that organ or not. Let us suppose that you find, as in the majority of cases you will do, a rubbing sound, showing the existence of the pericarditis, or a bellows sound, indicative of valvular disease or of extreme anæmia. What are you to do in such a case as this? The patient is quite delirious, tosses about the bed-clothes, talks wildly, tries to get out of bed, and will not be restrained.

Although there is inflammation of the heart here, and none of the brain, yet I can assure you that the symptom which demands most urgently your first attention is the delirium; and that whatever may be your theory as to the relation of the delirium to the affection of the heart, the interests of your patient demand the instant adoption of means to quiet the state of excitement into which he has passed. Important and serious as is the affection of the heart, as compared with the delirium, it is just now of no moment; for if the delirium be allowed to continue, there is great danger of the patient dying suddenly from exhaustion.

Fortunately, however, we have in opium a remedy equally applicable to the cardiac, as well as to the cerebral affection. In these cases you must give opium to produce sleep, just as you would do in traumatic delirium or in delirium tremens. Opium thus given will quiet not only the brain, but the heart also; and it no doubt exercises a favorable influence on the inflamed serous membrane likewise, checking the spread of inflammation and promoting its resolution.

At the same time you will find it useful to apply a blister to the region of the heart, and to promote a free discharge from the blistered surface. But avoid bleeding, whether general or topical, if you wish to get your patient through without untoward symptoms, and reserve all other depressing treatment until the symptoms of delirium have passed away. During delirium you must also be careful to administer support, because the very existence of delirium makes great calls on the powers of the patient, and he therefore requires to be freely supplied with nutritious matter easy of digestion, and with stimulants. You need not be deterred from giving opium, and administering support and stimulants, by the fear lest such treatment should increase the cardiac inflammation; the experience of many

cases convinces me that under this plan the heart becomes less irritable, the pulse slower and the cardiac inflammation becomes circumscribed, and it tends to terminate by resolution or adhesion rather than by the effusion of water. On the other hand, if you persist in an antiphlogistic plan, you keep up or increase delirium, you exhaust the powers of the patient, and effusion is apt to take place into the pericardium, whereby the heart's action may become seriously impeded.

If this treatment be commenced early, and pursued effectually, it is rare indeed for the patient to go wrong.

¶. As delirium is a very common symptom in erysipelas, and often difficult to treat, we shall make room for the subjoined sensible observations on this subject, regretting at the same time, that our limited space precludes our making any further analysis of these interesting papers, by Dr. Todd.—*Braithwaite's Retrospect from N. O. Med. & Sur. Jour.*

PART FOURTH.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

1.—*Surgical Anatomy.* By Joseph Maclise, Surgeon, with colored Plates. Part IV. Philadelphia: Blanchard & Lea. 1851. Price $2 each Part.

It was proposed and expected that this beautiful work would be completed in four parts; but the materials have so accumulated on the hands of the author, that another part is necessarily added. The price, however, of the 5th Part is to be but one dollar. The present contains sixteen elegantly and accurately executed plates, each plate containing from one to fiteen figures. It commences with the surgical anatomy of the iliac and femoral regions. This is followed by the relative anatomy of the male pelvic organs—the perineum, with its relations to lithotomy. The dissections of the male bladder, urethra, prostate gland, with their morbid conditions, are fully displayed; the whole being accompanied by lucid commentaries and explanatory notes.

Part IV. is fully equal to the preceding, in all those elements which have rendered them so universally popular with the profession. To the young surgeon, who cannot have frequent access to the dissecting room, these plates are a desideratum; and he who is favored with opportunities of an occasional examination of the natural parts, will be greatly benefitted by reference to these unsurpassed delineations.

Sold by Huntington & Mac Intire.

2.—*The Half Yearly Abstract of the Medical Sciences: Being a Practical and Analytical Digest of the contents of the principal British and Continental Medical Works, published in the preceding six months; together with a series of Critical Reports on the progress of Medicine and the Collateral Sciences during the same period.* Edited by W. H. Ranking, M.D. Contab. No. XIII. January, June. 1851. pp. 324. Philadelphia: Lindsay & Blakiston.

The above work, or Resume of all that is new and interesting, is so well known to the profession, that it needs no especial notice at our hands. The present number contains a vast amount of matter, of more than usual interest. It is precisely what the profession needs. It gives us, in the compass of a few pages, the *quintessence* of all the improvements in Medicine and Surgery for the entire preceding six months.

3.—*Proceedings of the Iowa Medical Society.*

We have received, in a pamphlet of 63 pages, the proceedings of the Second Annual Meeting of the above Society, held in Fairfield on the 7th of May. Although it does not contain the names or the number of those present, we infer that the attendance was respectable. The proceedings are characterized by a commendable enthusiasm in the great cause of professional advancement, and by unanimity of action and feeling. It contains several able reports; one, from the pen of Prof. Sanford, "on the causes which contribute to depress the Science and Dignity of the Medical Profession in Iowa," adds to the author's reputation as an elegant and logical writer. The second is "on the Medical and Economical Botany of Iowa," from Dr. Rauch. A very long list of medicinal plants, occupying 38 pages, is given. The

chairman, and several others, have exhibited a commendable zeal in the prosecution of this most delightful study, and in the collection and preservation of plants, which they propose to exchange with botanists in any part of the country. Another report, "on the Topography, Climate, and Diseases of Iowa," is from the pen of Dr. J. F. Henry. We are gratified to notice the election of our old friend and fellow-citizen, Dr. D. L. McGugin, as president of the society, and that he is taking effectual measures for the upbuilding of a Lunatic Asylum in that young and flourishing State.

4.—*The Microscopist, or a Complete Manual on the use of the Microscope, for Physicians, Students and all Lovers of Natural Science, with Illustrations.* By JOSEPH H. WYTHES, M.D. 12 mo. pp. 191. Philadelphia: Lindsay & Blakiston. 1851.

We take more than ordinary pleasure in announcing the work before us to our friends and the profession. The increasing attention paid to the subject of Histology and to Microscopy in general, by medical men and others engaged in scientific pursuits, has for some time demanded a work which should serve as a guide or text-book on the uses of the Microscope. The study of Microscopic Anatomy and *Physiology*, in those departments which require the aid of this instrument for their elucidation, is not only one of absorbing interest, but promises to throw a vast amount of light upon the subjects of Pathology and Diagnosis. The medical profession is awakening to the importance of this subject, and we trust the day is not far distant when Microscopy will be taught as a prominent department in every medical college, and the microscope shall be considered necessary to complete the armamentaria of every physician and surgeon.

From the examination we have given "The Microscopist," and we have looked it over rather carefully, we feel that we can scarcely say too much in its praise. We do not remember when we have seen so much substantial and valuable matter brought within so small a compass. The propensity of modern writers is to elaborate and amplify to such an extent as to render their works unwieldy and really formidable. Verbiage and circumlocution are among the great defects of modern literature. Strange, when life is known to be so short, that men should be obliged to wade through oceans of words in order to secure a few ideas which might be laconically expressed.

To give the reader a specimen of the author's style, and at the same time something of the beauty and the grandeur of the subjects contemplated in the work, we quote the following:

"To the Christian philosopher, the microscope reveals the most amazing evidence of that Creative Power and Wisdom before which great and small are terms without meaning. He rises from the contemplation of the minutiæ which it displays, feeling more strongly than ever the force of those beautiful words—'If God so clothe the grass of the field, which to-day is, and to-morrow is cast into the oven, shall he not much more clothe you, O ye of little faith?'

"To the geologist, it reveals the striking, yet humbling fact, that the world on which we tread is but the wreck of ancient organic creations. The large coal beds are the ruins of a luxuriant and gigantic vegetation; and the vast limestone rocks, which are so abundant on the earth's surface, are the catacombs of myriads of animal tribes which are too minute to be perceived by the unassisted vision. It exhibits, also, that metallic ore, as the Bog Iron Ore, and immense layers of earthy and rocky matter, are formed merely by the aggregation of the skeletons or shields of Infusoria; while beds of coral rocks are still in the process of formation, the architects being tiny marine polypi. Further, by this instrument, the nature of gigantic fossil remains is often determined, and by it they are assigned their true place in the classification of the naturalist.

"To the student of vegetable physiology, the microscope is an indispensable instrument. By it he is enabled to trace the first beginnings of vegetable life, and the functions of the different tissues and vessels in plants.

"The zoologist finds it also a necessary auxiliary. Without it, not only would the structure and functions of many animals remain unknown, but the existence of numerous species would be undiscovered.

"It is to the medical student and practitioner, however, that the microscope commends itself for its utility. A new branch of medical study—histology—has been created by its means alone; while its contributions to morbid anatomy and physiology, or pathology, are indispensable to the student or physician who would excel, or even keep pace with the progress of others, in his profession."

The work is divided into fourteen chapters. Chap. I, we have—

The history and importance of Microscopic Investigation. II. A description of the Microscope. III. Adjuncts to the Microscope. IV. Instructions how to use the Microscope. V. On mounting and preserving objects for examination. VI. On procuring objects for the Microscope. VII. Test objects. VIII. Directions for dissecting objects for the Microscope. IX. A brief description of the cell doctrine of Physiology. X. Examination of Morbid Structures, etc. XI. On Minute Injections. XII. Examination of Urinary Deposits. XIII. On Polarized Light. XIV. Hints to microscopists.

The above subjects, although not as elaborately treated as in the large works of Quecket, Robin and others, are illustrated in a plain, concise and graphic manner; and for practical purposes, particularly to the student, the work is really superior to them.

We trust the students of Natural Science, and scholars of our country will gratefully respond to the author for this valuable production. They will doubtless appreciate the beauty and appropriateness of the following closing paragraph of the author's preface:

"The work is committed to the notice of the scientific community with the hope that it may prove of service in the study of the wonderful works of the Great Creator, who is "all in all, and all in every part;" whose Power and Wisdom are seen as well in the minutest atom as in the most gigantic masses; and whose government embraces not only intelligent free agents, but also the smallest animalculæ existing in a drop of stagnant water.

5.—*The Laws of Health, in Relation to Mind and Body; A Series of Letters from an Old Practitioner to a Patient.* By Lionel John Beale, M. R. C. S., 12 mo. pp. 295. Philadelphia: Blanchard & Lea, 1851.

Although the author does not intimate for what class of readers the work before us was written, we infer, from its being arranged in a series of letters to a patient, that it was designed more especially for the people or the non-professional reader. Works of this class, which are intended to enlighten the public mind on the momentous subject of human health, are, if skillfully executed, fraught with important and lastingly beneficial results. Physicians cannot, perhaps, engage in a more important calling than that of imparting knowledge which shall guide men in the best possible manner so as to secure their physical well-being. To write a book, however, which will attain this

object, is no easy task. We infer this from the fact that so few have succeeded. The cause, however, may lie in the incompetency of the authors who have generally thus far failed.

Of the work before us, in many respects we can speak in terms of commendation. Many of the phenomena and functions of mind and body are lucidly and correctly described. Truths and practical hints are displayed in many portions of the work, such as will really enlighten and benefit the reader. But there are mingled with these, irrelevancies, inaccuracies, and commonplace words and phrases, which must render its claims questionable at least. Besides, there is a want of system; the author is frequently too discursive; leaping from one subject to another which have no natural relations. The work, however, will repay the reading; and, for its merits, we commend it to those who may desire to consult such a work. Sold by Huntington & Mac Intire.

6.—*Elements of General and Pathological Anatomy, presenting a view of the Present State of Knowledge in these Branches of Science.* By David Craigie, M. D., F. R. S., Fellow of the Royal College of Physicians, Edinburgh, and Honorary Consulting Physician to the Royal Infirmary. Second edition. Enlarged, revised and improved. 8vo. pp. 1072. Philadelphia: Lindsay & Blakiston, 1851.

As the first edition of this voluminous work on Pathological Anatomy was issued in Great Britain, near twenty-five years ago, it could not contain the many important discoveries and improvements made within the last quarter of a century. Whatever was *true*, was as much so then as now, and consequently the author remarks thus:

"In preparing the present edition, all the materials of the first have been employed. But they have been greatly increased by the introduction of new matter under the proper heads, in order to carry forward to the present time the information acquired since the appearance of the first edition. Numerous rectifications, both in healthy and morbid anatomy, have also been made.

"Besides the changes now mentioned, two new books have been added; one on the Structure and Morbid States of the Glands; the other on the Structure and Morbid States of the Lungs and Heart.

"The object of the author throughout the volume has been to

communicate precise and useful information in a perspicuous and methodical manner."

He further says, that —

"Novelty is not the only object which the author of a work on pathological anatomy should keep in view. His great object must be to furnish correct statements and useful information on the nature and distinctive characters of diseases. On this account the author has adhered, as formerly, to the principle of judicious selection."

The work is divided into six books, each book being subdivided into several chapters. The first treats of Simple Elementary Tissues. II. of the Nervous System. III. of the Kinetic Textures. IV. of the Membranous, or Investing Textures. V. of the Glands. VI. of the Lungs and Heart. The subjects of each chapter we cannot enumerate, but we feel justified in making the general remark, that the work seems full and complete, and treats of every subject within the domain of general pathology and pathological anatomy.

The mechanical execution of the work is excellent. The paper, type and binding are all of the best quality. The publishers have done themselves great credit, and laid the profession under increased obligations for the pains they have taken in placing so valuable a text book within its reach.

For sale by Huntington & Mac Intire.

7.—*Practical Anatomy, Physiology and Pathology, Hygiene and Therapeutics.* By T. S. LAMBERT, M. D., Professor of Anatomy and Physiology in Pittsfield, (Young Ladies' Institute.) Author of "Notes to Muller's Physiology," Popular Anatomy and Physiology, Pictorial Physiology, etc. Illustrated by five colored plates, and over one hundred wood engravings. 12mo. pp. 258. Portland: Sanborn & Carter. New York: Leavitt & Co. 1851.

Third Book of Anatomy and Physiology, or Popular Anatomy and Physiology adapted to the use of Students and General Readers. By T. S. LAMBERT, M. D., Professor of Anatomy and Physiology, etc., etc. With one hundred and fifty wood cuts, and beautiful lithographic descriptive illustrations. 12 mo. pp. 408. Portland: Sanborn & Carter. New York: Leavitt & Co. 1851.

We congratulate ourselves and the community at large, that the important sciences of Anatomy and Physiology are beginning to be

taught, and are thoroughly and successfully studied in the academic institutions of our country; and for the purpose of facilitating their study, and for the illustration of these great departments of knowledge, we are happy to find books written by members of our profession, who, by their talents and learning, are abundantly competent for the work. How is it possible for the rising generation to engage in a more interesting and profitable study than that of their own physical and mental organization? There is no mechanism so perfect, so complicated, and at the same time so beautifully adapted to its respective functions, as that of the human body. Nothing bears so directly upon human health, happiness and longevity, as a sound, practical knowledge of Anatomy and Physiology; and yet, strange to say, there is no department of human knowledge about which men are so profoundly ignorant, as this. The relations of bones blood-vessels, muscles and nerves; the circulation of the blood, respiration, digestion, nutrition and secretion, are to most well-informed men inscrutable mysteries.

We have not time nor space to review the above works. They are written mainly for the use of schools, but their perusal will benefit any man at any age, of any avocation or profession. We would invite our readers to procure and examine them for themselves; and if, in their estimation, they are equal to our recommendation, we hope they will exert their influence to place them in the hands of all teachers and scholars within their reach. They are not written by an *upstart*, fugitive, or pretender in our profession, but by a man who is not only thoroughly educated, but loves, and cherishes, and ably defends the profession of his choice.

These works are accompanied by six or eight large colored plates — about two by three feet square — illustrating the human skeleton, the muscles, the viscera, &c., &c., on so large a scale as to be easily seen across an ordinary school room. The plates, beautifully executed and colored from those of Bourgery and Jacob, cost, if we recollect rightly, but fifty cents each, thus bringing them within the reach of every school district in the land.

Dr. Lambert has already done the cause of education an essential service, and has laid our country under the highest obligations to him for his singularly valuable productions.

Sold by Huntington & Mac Intire.

8.—*A Practical Treatise on the Diseases of the Lungs and Heart, including the Principles of Physical Diagnosis.* By WALTER HAYLE WALSHE, 12 mo. pp. 612. Philadelphia: Blanchard & Lea, 1851.

This work is divided into two parts. Part I. treats of the physical examination of the lungs, heart, and great vessels, and is sub-divided into two chapters. Chapter I. takes up the physical examination of the lungs, and Chapter II. the physical examination of the heart and great vessels. Part II. considers the diseases of the lungs, heart and aorta, and is sub-divided into three chapters. Chapter I. treats of the diseases of the lungs and their appendages. Chapter II. the diseases of the heart, and Chapter III. the diseases of the aorta.

The examination we have given the above work, convinces us that it is a complete system or treatise upon the great specialty of Physical Diagnosis. To give the reader a more perfect idea of what it contains, we should be glad to copy the whole table of contents and make some extracts from its pages, but our limits forbid. We have no hesitation in recommending the work as one of the most complete on this subject in the English language; and yet it is not so voluminous as to be objectionable on this account, to any practitioner, however pressing his engagements.

Mechanically, it is executed in an elegant and workmanlike manner, and reflects much credit upon the enterprising publishers.

For sale by Huntington & Mac Intire.

9.—*Cox's Companion to the Sea Medicine Chest, and Compendium of Domestic Medicine;* particularly adapted for Captains of Merchant Vessels, Missionaries, and Colonists, with Plain Rules for taking the Medicines; to which are added Directions for Restoring Suspended Animation, the Method of obviating the effects of Poisons, a plain description of the Treatment of Fractures and Dislocations, and a concise account of Asiatic or Spasmodic Cholera. Revised and considerably enlarged by R. DAVIS, Member of the Royal College of Surgeons, assisted by some of the most eminent Physicians and Surgeons of the day. First American from the thirty-third London edition; 12 mo. pp. 216. New York: Samuel S. & William Wood, 261 Pearl street. 1851.

For the amusement and instruction of our readers, we copy the

notice of the above work from the Boston Medical and Surgical Journal. It is a good one:

"Messrs. S. S. & W. Wood, of New York, have published a small volume of 216 pages, from an English copy of Cox's Companion, with a title-page elaborate enough to express the contents of a cyclopædia. It makes no pretensions to high ground; the object is to give seamen some general notions how to proceed, when taken sick at sea. A vessel rarely leaves port without an assortment of medicines, which are often dipped into unsparingly, on the least alarm—the strongest being always supposed the best. We have had much experience with sick seamen, and appreciate any efforts to relieve their hardships, and especially the one of being prostrated with sickness at sea. Many a poor fellow has been lowered over the bulwarks, a victim to excessive medication with Glauber's salts, who might have seen shore again under proper treatment. When a man before the mast is unable to perform duty, the captain assumes the functions of a physician, and, right or wrong, a dose of salts is the sheet anchor on which they all rely when Jack's weather braces become too taut. If one dose does not limber his sheets, another is given, more potent than the first; and if he dies under such attentions, the whole crew knew it would happen because mother Carey's chickens danced athwart the bows in the last gale! They talk over the virtues of the departed—how he could double-reef a topsail in a blow, quicker than lightning could scorch a feather; and never chewed anything but pigtail, which he divided to the last quid with the mess. In short, he died like a gentleman as he was, and the captain gave him salts to the last, with his own hand! Now if a scene like this can be prevented, and one hardy fellow on the deep be made more comfortable, by providing ships with this guide-book to the medicine chest, or with Dr. Parson's excellent Physician for Ships, their circulation should be encouraged in our mercantile service."

PART FIFTH.

EDITORIAL AND MISCELLANY.

We have been so deeply interested in the perusal of the following report of Dr. Howe, on the subject of Idiocy, that we have concluded to lay it, or essential portions of it, before our readers. We ask our friends to read the report, and although not of a strictly professional character, it will be, nevertheless, peculiarly interesting to the true physician, who is ever ready to sympathize with suffering humanity in every form, and takes pleasure in co-operating in any project or enterprise, the object of which is the amelioration of its condition.—[EDITOR.]

ON TRAINING AND EDUCATING IDIOTS: THE SECOND ANNUAL REPORT MADE TO THE LEGISLATURE OF MASSACHUSETTS. By S. G. HOWE, M. D.

Perkins Institution and Mass. Asylum for the Blind,
Boston, January 20, 1851.

To his Excellency, the Governor:

SIR: I have the honor to lay before you the Second Annual Report of the doings under the Resolves of the Legislature, May 8th, 1848, for training and teaching Idiots.

By those Resolves there was appropriated the sum of twenty-five hundred dollars a year, for three years, for the purpose of finding out by actual trial, whether the bodily and mental condition of IDIOTIC PERSONS could be improved, and whether the blessing of instruction, which Massachusetts provides for all others, could be extended likewise to these, the most unfortunate of all her children.

Your predecessor in office made arrangements with me, as head of this Institution, for conducting the trial, and making the experiment.

One of the conditions of the arrangement was, that the experiment should be tried upon at least ten idiotic youth, the children of paupers and indigent persons belonging to Massachusetts.

Ten such children were brought together, from different parts of the State, mostly from the Almshouses, in the autumn of 1848. In February, 1850, I made a Report at considerable length, giving the result of the trial up to that time, which Report was published by order of the Legislature, and may be found in House Document, No. 38.

One of the difficulties, however, in the way, is the popular error that idiocy is a positive and incurable malady, or an utter and hopeless privation of mind; whereas, it is neither the one nor the other, but only an infirmity or weakness of mind, greater or less. It may be so great, indeed, that the sufferer is lower than the brutes in point of intelligence, or it may be so slight, that one is perplexed to decide, whether he is, or is not to be considered idiotic; he stands, with a multitude of others, upon the dividing line, between silly persons and positive simpletons.

It is difficult to show, to persons who have not examined the subject of idiocy, and who are unacquainted with the former condition of our pupils, that they have made any great improvement. The ordinary standard is utterly useless for measuring them. Whatever progress they may have made, and whatever acquirements they may have gained, their knowledge is still, and must remain, a *minus* quantity, when compared with that of other children. Whoever compares the children in our school with those even of an inferior common school, will find the brightest in the first to be inferior to the dunces in the other.

Whoever should visit our school without ever having seen it before, and note the condition of the scholars without knowing what their condition was formerly, would find it hard to say a word of approval or encouragement. Of all such, we must ask a little faith in the statements we may make, though these will be sustained by such evidence, from the parents of the pupils, as can be obtained.

There are persons, however, (and there must be many such in the Legislature,) who know from actual observation, what is the condition of idiots in our country towns, especially in the almshouses, and such persons are earnestly invited to come and examine our school, and see if it does not give proofs enough of the capacity of idiots for instruction and improvement.

Most of these youth were, three years ago, in an utterly helpless

and hopeless condition of idiocy. Some of them sat or lay in driveling impotency, unable to do anything but swallow the food that was given them. They were void of speech and understanding. They were filthy in their persons and habits, and given to debasing practices. They were unable to dress themselves, or sit at table and feed themselves. They passed their time in idleness, without a thought or an effort to better their deplorable condition. Some of them were noisy and destructive in their habits.

A great change has now come over them. They have improved in health, strength, and activity of body. They are cleanly and decent in their habits. They dress themselves, and, for the most part, sit at table and feed themselves. They are gentle, docile, and obedient. They can be governed without a blow or unkind word. *They begin to use speech*, and take great delight in using the words of simple sentences, which they have mastered. They have learned their letters, and some of them, WHO WERE AS SPEECHLESS AS BRUTES, CAN READ EASY SENTENCES AND SHORT STORIES!

They are gentle and affectionate with each other; and the school and the household are orderly, quiet, and well regulated in all respects.

The former condition of these youth furnishes a fair specimen of what is the actual condition of hundreds in our Commonwealth, and thousands in our country; and their present condition furnishes a fair specimen of what may become the condition of all, if the State will take them under her fostering care.

With these preliminary remarks, I proceed to give the general history of the experiment during the last year, and a detailed notice of some cases, which will serve to illustrate the subject, and the mode of instruction.

The whole number of children received, under the provisions of the State appropriation, is 17. Of these, seven have been discharged, for the following reasons:—

One was found after a few weeks' trial, to be an improper subject for the experiment, because it appeared clear that he had too much capacity and intelligence, though he had been considered idiotic and sent to us as such.

Three others were found to be rather deranged than idiotic.

One proved to be hydrocephalic, and was discharged on that account.

One was so feeble and unhealthy, and required such constant nursing, as to be unfit for an experimental school.

One was so much improved by a year and a half training and instruction, that he was able to go to a common primary school, and was discharged accordingly.

All the seven had, with one exception, greatly improved in their condition and habits. Even the insane had become quiet and docile. They were more comfortable, and in a better condition in all respects, than they were before they entered the school, or than they have been since. They were not, however, fair representatives of the class whose capacity for improvement was to be tested by the experiment, any more than the one who proved to be too intelligent, and they were therefore discharged. The present number is ten; seven boys and three girls. They were taken from indigent families, or from almshouses, in different parts of Massachusetts, agreeably to the conditions of the act of the Legislature.

The general course of training and instruction, which was described in the last report, has been followed during the past year, and with the same marked success. A plain but plentiful diet; abundance of sleep; cold bathing, followed by friction; walking and running in the open air; gymnastic exercises, for giving muscular activity and strength; amusements of various kinds:—such are the means relied upon for promoting and maintaining the bodily health of the pupils. An improvement of the physical condition and a nearer approach to a normal state of health, naturally begets greater freedom and precision in the action of the mental powers; just as repairing and cleansing the works of a watch causes greater precision in the motion of the hands.

Special care and attention has been given, however, to bring out and to train the feeble mental faculties of the pupils, by simple exercises, adapted to the purpose. These were described in the last report, and the description need not be repeated now.

It is not necessary, either, to go into a detailed account of each pupil. Two cases, however, will be described, because they are types of a class, and because the success obtained with them is great and striking.

The first will be the type of the class of IDIOTS PROPER.

In former reports I divided idiotic persons, for the sake of convenient and popular classification, and with a view to showing the degree of their mental infirmity, into three classes—Idiots, Fools and Simpletons; the first being the lowest, the last the highest, in the intellectual scale. The class of idiots comprehends many whose mental infirmity arises from various causes, but I consider the pure type of idiocy to be a person whose lack of understanding arises from the smallness of his brain. The organ is so small that it cannot perform its functions in a normal manner; it has not power enough. This class is very small. For one person in whom idiocy is caused by smallness of the brain, there are many in whom it is occasioned by other causes; many whose brains are of normal size, but not of normal condition.

George Rowell is a congenital idiot. He entered our school in December, 1848, being then seven years and six months old. His head was very small, especially in the upper regions. The greatest circumference, over the occipital spine and the frontal sinuses, was only 14 inches, 91 hundredths. The greatest length, measuring from ear to ear, over the top of the head, was only 10.44 inches. From the root of the nose to the occipital spine, over the head 10.13 inches. He was small of stature, being only three feet nine inches in height, and he weighed only 32 pounds. His temperament was decidedly nervous, his organization fine, his complexion fair, his hair fine and light, his eyes dark and bright, his lips and nostrils thin, his chest and abdomen narrow, his extremities slender and bony, his fingers delicate and well proportioned.

His health was feeble, and he was subject to epileptic fits, which recurred frequently. His father, in writing about him, says, "he was sickly, sometimes having two fits in a night."

The senses of hearing and taste were not particularly dull, though those of smell and taste were. He was very active in his motions; his countenance was lively; and, in his gait and some of his habits, he reminded one of a monkey. In point of intelligence, he was very low. Speech, that peculiar human attribute, and the surest test, in such cases, of the degree of intellect, was wanting; he could only pronounce three words, and those only indistinctly. He was, to all intents and purposes, as dumb as a brute. He could be made to understand simple directions, by signs and sounds, but hardly more than

a dog; and his memory was so feeble that he forgot them at once. He had no sense of decency or of duty, and no regard for the rights or feelings of others.

There was, however, much vitality and energy about him, which, being expended through his animal nature, kept him active, restless, and mischievous. He was passionate and destructive, and given to picking things to pieces, and destroying them. His appetite was voracious, and he would cram anything he could lay his hands upon into his mouth, without the use of fork or spoon. His acquisitiveness showed itself in his disposition to possess himself of whatever he could; pushing others away to obtain it, and hoarding it up for himself. He had no sense of decency, and his habits were those of an infant.

Such was this boy two years and a half ago; nor was there any reasonable hope of his improvement. In the language of his father, "there seemed no hope of his learning to speak, or read, or take care of himself."

But now a great and happy change has come over him. He is decent in all his habits, and cleanliness has not only become a custom, but a want. He is neat in his dress; he sits at table, and conducts himself properly, using a knife and fork, and eating as other children do. He makes his bed, sweeps the floor, assists in scouring knives, and does various little *chores* about the house, with great good humor and sufficient skill. But the most gratifying result is, that he BEGINS TO SPEAK! About this beginning there are some interesting phenomena. His case shows, very strikingly, the great importance of the early and ceaseless prattle of little children. They are training themselves for speech, by subtle exercise of the nice little muscles of the lips, the tongue, and the throat; and the words which they catch are repeated over, a million of times, until they acquire such pliancy, such swiftness, and such dexterity, as would appear to us marvellous, had we not acquired the same, without knowing how long we were about it, or what it cost us.

After this long and varied training, which is all in the way of sport, children have the organ of speech fully prepared to pronounce a language as fast as it can be supplied to them. They imitate, perfectly and readily, the pronunciation of any words of the language, or of any foreign language, provided it do not contain sounds which their

own has not. If it does, they hesitate, because they had never drilled their organs to emit this particular sound.

Whenever a person is prevented, by any cause whatever, from learning to speak in early childhood, and attempts to do so later in life, he has great difficulty in articulating words; he cannot learn to speak so fast as he can learn to understand language, because his organs have not been trained. If he is an adult, and his articulating organs have had their growth, and become hardened, he can never break them in so as to modulate new sounds—he can never pronounce the shibboleth of other tongues.

There are many well educated deaf mutes who can read and write their own and even foreign languages, with great ease and correctness; but if one of them should be suddenly made to hear, he could not speak; but he would have to go through a very long and tedious training of his vocal organs, before he could articulate so as to be understood. So it is with those idiots who have not mind enough—who have not the human attributes strong enough—to impel them, as other children are impelled, to exercise the vocal organs, and who have had no special aid given them to do so. When this aid comes at last, as it does in the case of the boy now under consideration, then the difficulty manifests itself; he cannot use language nearly as fast as he learns to understand it. George, however, does not now need any urging to talk; the *innate disposition* to do so was always there, as it is in every human being; and now that the *faculty* has been awakened, with the awakening comes the desire of exercising it; his tongue has been loosed, and every hour, almost every minute, he keeps it in motion. He still finds great difficulty in articulating any new word, but this will be overcome rapidly.

He has learned to read simple sentences, and does read understandingly, and with great pleasure and pride, such books as Bumstead's Primer. That he understands what he reads, and that it awakens in his mind the same feelings and affections as it does in other children, the following anecdote, related by Mr. Richards, will show:—

"One day, in reading about a little girl who fell into the water, George looked up, with a countenance full of anxiety, and exclaimed, inquiringly, '*girl—fell—water?*' Yes, said I; and he seemed very sad, till I told him to read on; when he came to the sentence, 'the

large black dog jumped into the water and pulled her out.' He seemed to fear that it was not so, and said, inquiringly, '*pulled—her—out?*' Yes, said I. Then repeating his question, as if it were hardly possible, he said, '*pulled—her—out?*' Yes, I told him, pulled her out of the water! He immediately dropped his book, and, turning round, threw his arms round the neck of a little boy who sat near, and hugged and kissed him, crying and laughing alternately for joy."

The family and friends of this boy, who knew his former and present condition, readily bear their testimony to the change and improvement which has taken place in him.

His father writes thus:—

AMESBURY, Jan. 15, 1851.

DR. S. G. HOWE:

Dear Sir,—In answer to your inquiry, I would say that my son George, when he left to go to your Institution, was in a very helpless condition. He could not articulate words, and was sickly, sometimes having two fits in a night. We had to take care of him and attend upon him as upon an infant. There seemed no hope of his learning to speak, or read, or take care of himself.

In this condition he went to Boston. On his first visit home, we saw a decided improvement. On the second, we were both surprised and rejoiced; his health was good, and he could speak and read. We now thankfully trust that he will be able to take care of himself in life, with comfort to himself and friends.

Yours, respectfully,

JACOB ROWELL, JR.

The following extract from an article on idiocy, in the last number of the "Christian Examiner," will be considered important evidence, as the writer, Mr. G. B. Emerson, than whom no one is a more competent judge in matters pertaining to education, speaks from his own knowledge and observation of the lad:—

"George Rowell, who knew nothing, could do nothing, observed not the first rules of decency, and was utterly helpless, and who, doubtless, under the usual system of neglect, would have remained so, or, as is universally the case with neglected idiots, would have become, if possible, worse, takes the visitor's hand, talks, articulating distinctly, and goes to the letter frame on the table, and not

only selects and arranges the letters to spell any common short word, but without aid, selects and arranges the letters, and forms the sentence, *Our Father, whoart in Heaven, hallowed be thy name*:—divine words, which are now familiar to the eye, and which, if he continues to make the same progress, will soon, we may hope, reach the soul of the poor rescued child. This boy was lately allowed to make a short visit to his parents; and when, at the expiration of the time, his teacher went to bring him home, the father began to thank him, and to tell him how much he was pleased with his progress. '*George*, now,' he said, '*plays* with the other boys; he plays *like* the other boys.' He would have gone on, but he could only put his handkerchief to his eyes—he could say no more."

The complete success which has been obtained, by two years' training and instruction of this lad, is very gratifying and very important, because it establishes, beyond all question, the fact that even idiots of the lowest mind may be improved. The most sceptical person, who sees George, must pronounce him to be a born idiot; and, if he pays a moment's attention, must confess that he manifests intelligence and capacity such as no uninstructed idiot, no idiot left to the ordinary course of life, ever could attain.

It is true that the class of pure idiots, to which George belongs, is small; it is true, also, that his organization is a remarkable one; the high nervous temperament, the fineness of which is so apparent in him, gives him great advantage. His dwarfed brain is so active, that it enables him to do what, with an ordinary one of the same size, he could not do. It is like a machine, which makes up in speed what it wants in power. Nevertheless, there he stands, redeemed from his degradation, claiming kindred for himself and his class with humanity; and if others can be elevated as much in five years as he has been in two and a half, they surely ought to be.

The second case is one selected from that larger class of persons, who are born with fair capacities, and who, under proper treatment, would manifest a fair share of intellect, but who have been badly managed, and become idiotic, or have been misunderstood, and considered idiotic. Indeed, the boy Clapp, already mentioned as having been so much improved as to be discharged and sent to a common primary school, was of this class; and so was the boy Clough, who was sent here as an idiot, but discharged as having too much intel-

lect. These, however, were very favorable cases, and not fair specimens. The one I shall select, was a very bad case, and presented to common observers no hope of improvement.

Sylvanus J. Walker, of Worcester, mentioned in a former report, was about six years old when he entered, October 17, 1848.

He was a pitiful sight to behold. He could not stand or even sit erect. He had no command of his limbs, not even so much as an infant of three months, for it can work its arms, and kick its legs vigorously; this poor boy, however, could do neither, but laid almost like a jelly fish, as though his body were a mass of flesh without any bones in it. He could not even chew solid food, but had to be fed on milk, of which he consumed an inordinate quantity. The utmost he could do, in the way of motion, was to get his head propped up on one hand, and move the other feebly about.

He measured 40 inches in length; his weight was 31 pounds; his head of average size; his temperament lymphatic. He seemed to hear, but his eyes were dull and without "speculation;" his other senses were quite inactive. He drivelled at the mouth, and his habits were in all respects like those of an infant. He was speechless, neither using nor understanding language, though he made several sounds, which seemed to be a feeble imitation of words.

Such was the unhappy and helpless condition of this poor boy; and out of it there seemed no prospect of his emerging. His case seemed to be one of congenital idiocy; but there are strong reasons for thinking that he had been injured by bad treatment. One instance of this was the fact that, soon after his birth, the nurse rubbed into his head a considerable quantity of rum, holding his head close to a stove, and rubbing it briskly to promote the absorption. It is well known that liquids can be absorbed into the system through the skin, and the effect of rum upon the brain of a new-born infant must have been bad.

The change and improvement that has taken place in this boy, is most remarkable and most gratifying. In the report of last year, he was thus noticed:—

"He has been bathed daily in cold water; his limbs have been rubbed; he has been dragged about in the open air, in a little wagon, by the other boys; his muscles have been exercised; he has been made to grasp with his hands, and gradually to raise himself up by

them. He was held up, and made to bear a little of his weight upon his lower limbs; then a little more; until, at last, to his great delight, he was able to go about alone, by holding on the wall, or to one's finger; even to go up stairs, by clinging to the balusters. He can go around a large table, by merely resting one hand upon the edge of it. The like improvement has taken place in his habits. He is observant of decency; he calls, when he wants any assistance; he can sit at the table, and chew his food, and even feed himself pretty well.

"His cheeks begin to glow with color; his eye is much brighter; he gives attention to what is passing around him, and his whole countenance is more expressive of thought. His improvement of language is equally great; he has learned many words, and can construct many simple sentences. His affections begin to be developed, and he manifests his attachment to persons by unmistakable signs. Such is the effect of a year's training; and it is but the beginning, for this boy will doubtless go on improving, and advancing more rapidly for every step heretofore gained. He was put down on the list as an idiot of the lowest kind, for he was quite in an idiotic condition, nor was there any means of knowing his latent capacities. It will not be surprising, however, if he should be raised not only to the highest grade of idiots, or simpletons, but even lifted quite over that class. His case may prove to be one of those mentioned under the head of Classification, which are neglected, because, by mistake, they are included in a class generally deemed beyond the reach of the teacher's art."

During the last year, he has gone on improving. He is now decent in all his habits, and tidy in his appearance; his countenance is bright and pleasing; he can sit at table, and feed himself with knife and fork; and though he does not venture to go alone, his limbs not being quite strong enough, he can almost do it, and he walks about by holding to one's finger.

All his senses have improved greatly; and he is so changed, generally, that he could hardly be recognized as the same being who, two years ago, incapable of sitting at a desk, used to lie upon a mattress in the school-room. The same writer in the Christian Examiner, already quoted, says of this case:

"The boy, Sylvanus Walker, who, two years ago, had not learnt even to use any of his limbs, now sits, stands up, shakes hands, is

pleased, and smiles, asks you how you do, and reads readily any part of a little book which was put into his hands less than three months ago, points out any word you ask for on the page, and does all this with so much pleasure, that when you are about to turn away from him, he asks to be allowed to read more, and eagerly reads to you his favorite passages."

This boy is not now an idiot; nevertheless, he was in a state of idiocy, and, to all appearance, of hopeless idiocy, when we received him. He was considered one of the most unfavorable subjects that could be found, and taken because it was desired to have some of the worst as well as some of the best cases. He has agreeably disappointed us, and outstripped others, who were considered as more promising than he was.

May there not be scores of such cases among the hundreds of idiots in our Commonwealth, who are now left in their brutishness, because they seem incapable of receiving instruction?

Such are two of the most striking cases. Others might be mentioned, where the results have been most gratifying.

I consider this experiment, therefore, to have been entirely successful. It has demonstrated beyond question that, among those unfortunate human beings who are left to grovel in brutal idiocy, there are many who can be redeemed and elevated, and made to be comparatively intelligent, and happy, and useful. Here stand the rescued ones, living proofs of the power of education. Let even the most sceptical examine them closely; their doubts will be removed. Let those who have disapproved the project as a vain and hopeless one, and those, also, who have ridiculed it as a presumptuous one, (for there have been both, and in high places too,) let them come, and see whether they have not unwittingly been encouraging an abandonment of their fellow-beings, who might have been saved from a condition at which humanity shudders.

The period for which an appropriation was made has not yet expired, but it will have expired before the Legislature assembles again; and, unless some measures are taken now to continue the enterprise, it must be abandoned for want of means. I would, therefore, earnestly ask, that a rigid examination of our school may be made, and when satisfactory evidence is obtained that the condition of idiots can be materially improved,—that they can be lifted out of

the brutishness in which they grovel,—that they can be made decent, and industrious, and happy,—then that measures be taken at once to secure so desirable an end, and consummate such a truly Christian work. Let an institution be permanently established, for teaching and training as many idiots as are capable of being improved. It is hard, indeed, to see upon what ground this can be refused. The State recognizes the right of all to an education; she provides it for ordinary children in the common schools; she provides it for the deaf mutes, and for the blind, in institutions got up expressly for their use; and shall the idiots be excluded from a participation in the boon which they, more than all others need, because they are the most unfortunate and the most helpless? Surely not; but, on the contrary, their claim should be considered all the stronger, because they have not the wit to urge, nor the power to enforce it. Their fate is entirely in our hands, and it is for us to say whether those among them who have latent capacities shall go down to the grave like the beasts that perish, or shall first learn to know and to love their "Father who is in heaven."

A NEW FORM OF INSANITY.—In Berlin, a curious subject for a thesis has been found by a student in Medicine, the son of M. Groddeck, the deputy, seeking his degree. M. Groddeck has discovered a new form of epidemic, whose virus has of late circulated throughout the Continental Nations with a rapidity contrasting strongly with the solemn and stately march of cholera. Its developement, indeed, has been all but simultaneous in the great European Capitals, but we know not that it has before occurred to any one to treat it medically. M. Groddeck's thesis, publicly maintained, is entitled "*De morbo democratico, nova insaniæ forma.*" (On the democratic disease, a new form of insanity.)—The Faculty of Medicine, with the usual dislike of Faculties of Medicine to new discoveries, refused admission, it appears, to this dissertation, but the Senate of the University, on M. Groddeck's appeal, reversed their decision.—*Athenæum.*

CHLOROFORM FOR THE EXTRACTION OF TEETH—DEATH.—The following case is related by Dr. Eissen, in the Gaz. Med. de Strasbourg, and affords another instance of fatal effects from the use of chloroform.

"A lady, 36 years of age, of a bilio-sanguineous temperament, who

had had three children, and whose health had always been satisfactory, was very much troubled with toothache. She had had four molar teeth extracted in the same sitting six or eight years previously; after which operation she had been seized with a convulsive fit. A little while ago the toothache became very distressing again, the patient had several nervous attacks, and was tormented with the idea that her dental pains exposed her to much danger. She sought the advice of a practitioner, and consented to a new extraction, stipulating, however, that she should take chloroform. Her husband held her hand, whilst her head was leaning against her maid; but before she had inhaled any chloroform, she started up and attempted to run away, using very incoherent language. When a little calmer, she sat down again, and a cloth, upon which a little less than two drachms of chloroform had been poured, was placed before her mouth and nose. The patient soon pointed out, by a few words, that the chloroform was beginning to take effect, and then became insensible. The operator extracted three teeth with the greatest promptitude, and only stopped when the husband directed his attention to the patient, who seemed to have fallen into an extraordinary state. On close examination, she was discovered to be quite dead, and the best directed efforts were fruitless in reviving her."—*Boston Med. & Surg. Journal.*

Death of Sylvester Graham.—Most of our readers in this part of the country are familiar with the name of this individual, who some years since made himself notorious in urging upon the community the system of light and exclusively vegetable diet to which his name was given. He has lately died at Northampton, in this State, at the age of about 50. The Gazette, of that place, states that his health had been gradually failing for the last year, and he had suffered much from rheumatism in his hands and feet. "A post-mortem examination disclosed no disease in the system, which, in the opinion of the medical examiners, was sufficient to produce his death; and the immediate cause of his decease is thought to be the use, contrary to the advice of his physician and friends, in the extreme exhaustion of the system, of Congress water and a tepid bath." *Boston M. & S. Journal.*

American Medical Association. Prize Essays.—At a meeting of the American Association, held in Charleston, S. C., in May last,

the undersigned were appointed a committee to receive and examine such voluntary communications on subjects connected with medical science as individuals might see fit to make, and award a prize to any number of them not exceeding five, if they should be regarded as entitled to such a distinction.

To carry into effect the intentions of the association, notice is hereby given that all such communications must be sent, post-paid, on or before the first day of April, 1852, to Geo. Haywood, M. D., Boston, Mass. Each communication must be accompanied by a sealed packet containing the name of the author, which will not be opened unless the accompanying communication be deemed worthy of a prize. The authors of the unsuccessful papers may receive them on application to the committee, at any time after the first of June, 1852; and the successful ones, it is understood, will be printed in the Transactions of the Association.

GEORGE HAYWOOD, *Boston.*
J. B. S. JACKSON, "
D. H. STORER, "
JACOB BIGELOW, "
USHER PARSONS, *Providence, R. I.*

Boston, Aug. 25, 1851.

The Western Lancet.—The October number of this valuable and ably conducted Journal contains a leading editorial article, headed "The Ohio Medical and Surgical Journal," and devoted mainly to the consideration of a communication in our September number, written by Dr. S. Hanbury Smith, Superintendent of the Ohio Lunatic Asylum. In the discharge of high and important duties, it is pleasant and gratifying to have our services and labors spoken of in terms of commendation by such men as the editors of our esteemed cotemporary, The Western Lancet. By the strictest integrity, and humble yet untiring efforts in the cause of science and suffering humanity, we hope, in some measure, to deserve the confidence reposed in us by our editorial fraternity and the profession.

Of the article written by Dr. Smith, "on the Medical Theories of the last century," and the criticism upon it, we have little to say. We are not aware that a defense or a disclaimer of that article is due from us. If the editor of a public journal must needs vouch for the truth of the facts advanced by an able and well-known correspondent, writing under his own name, or the soundness of his doctrines and

arguments, we have been hitherto ignorant of editorial duties and responsibilities. It is true that the power to examine, and publish or reject the manuscripts of his colaborators, is comprehended under the editorial prerogative, and it is doubtless his duty to exclude papers, in his estimation worthless, or in any respect objectionable, particularly if written by persons who have not, by their talents and labors, secured the confidence of their brethren. But when any regular member of our profession, by industry and perseverance, has won his way up to the sunny regions of renown, and has secured the esteem and confidence of the community, we believe he has a right to speak, and has a right also to be heard. Of the soundness of his doctrines or the defensibility of his propositions, his profession and the world, and not the editor, are to judge; and by their decisions, he must stand or fall, upon his own merits. Dr. Smith has written a communication, and by its publication, it has become the property of the world. In this communication he has been accused by the Western Lancet of uttering sentiments in support of that transparent and miserable *humbug*, *Homœopathy*. What the legitimate inferences from this language may be, we will not pretend to decide; but, however assailable or vulnerable, we have never suspected, and do not now suspect the Doctor of being a Homœopathist, or of cherishing the preposterous notions of Hahnemann. We do not, however, pretend to be the exponent of his views, but would refer those who are in doubt to himself. He is abundantly competent to make his own explanations and defense.

College of Dental Surgery at Syracuse.—We have just received the first annual announcement of the New York College of Dental Surgery, located at Syracuse. The Faculty of this College consists of five professors. Among them we observe the name of Dr. A. B. Shipman, formerly Professor of Surgery in the Indiana Medical College, and that of Dr. Thos. Spencer, who has been connected with the Medical Colleges at Geneva, N. Y., and Chicago, Ill. The fee for the entire course is 95 dollars. The organization in this Institution is thorough and complete; and, from the examination we have given the announcement, we believe they have *started right*, and must share largely in the patronage of the public. May the success of the enterprise be commensurate with the hopes of its friends. We hope to be able to give our Western profession, ere long, something more definite in regard to its plans and course of instruction.